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"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLXVI. APRIL 14 1944 No. 5280

THE LIBRARY OF THE
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PROSPECTS OF THE INDUSTRY

THE speech of Mr. Harland, President of the London Master Builders' Association, to the Association's Southern Area in Croydon, reported in our issue for March 24, was in somewhat pessimistic vein, and such pessimism regarding the post-war building prospects will probably appear to the majority of people outside the industry as surprising, and also to many inside it. The common view is that there is an enormous amount of building, not only housing but much else, which must be done, and that therefore the future of the industry is necessarily bright. Mr. Harland obviously does not share this view, stressing, and in our opinion quite rightly, the supreme necessity to cheapen production.

The extent to which the cost of building work has increased at the present time can, of course, be actuarily and accurately ascertained, but to accept this present extra cost as a guide to the cost of post-war building is misleading. The reason for this is threefold.

First, war-time building is not in great measure comparable to normal building work as it will be in times of peace. It is, and has been, very largely engineering work—the laying out of large sites on which structures of a more or less temporary nature have been erected. The principal requirement has been speed, not permanence. Moreover, such work has of necessity been carried out in remote parts of the country where, even in times of peace, very little building trade labour was available, with a consequent and inevitable heavy expense in temporary camps, welfare, and costs of transport both for labour and materials. A large part of such expense should not recur when building in or near urban areas.

Secondly, owing to the requirements of the Services, the quality and the productive capacity of labour have been seriously reduced. This adverse factor has naturally increased as the war progressed, until the labour employed to-day is largely the old, the unfit, or the very young and unskilled. The output of this labour can be little or no guide to what the output of normal labour will be after the war.

Thirdly, the cost of materials is in the ordinary sense fictitious and therefore misleading. By fictitious we mean that it is not decided by the ordinary rules of economics, but in many cases by outside causes which would not operate in time of peace. To take a few instances. The cost of bricks is artificially increased by the levy; the cost of sand and ballast on any one contract may be arbitrarily increased by the nearest pits being requisitioned and the consequent necessity of a much longer haulage. Who would care to say that the present nominal price of timber is due to economic causes, and still less to prophesy what its cost will be after the war? It is obviously possible that a glut may be arising in the countries of origin. We don't know, but it would appear to be not unlikely. In this case the cost might be even less than pre-war.

Thus, when Mr. Harland says that the country could not afford the present high costs in time of peace he is stating an unquestionable truth, but is it a relevant truth? For the reasons stated above it would appear doubtful.

Nevertheless, that there will be an extra cost is indisputable, and to attempt to prophesy what it will be is of doubtful value, but it is not doubtful that it is most important not only for the community but for the industry itself, both masters and men and all associated with it, that the increased cost should be as little as possible. Building is not an end in itself but a means to an end. It is an ancillary industry which provides the buildings in which men work and live and take their pleasure, and if its cost is excessive the factories will not be able to produce at an economic price for the export trade, and the houses and places of amusement will be so expensive that men will not be able to live in the one or go to the other without either subsidies or greatly increased wages and salaries, and such an extra cost will finally have to be borne by the export trade, without which we cannot live.

How then is this cost to be reduced? In Mr. Harland's view there are three factors: first, production of labour; secondly, the removal of restrictions and the abrogation of Orders such as the Essential Work Order and presumably the Uniformity Agreement; and, thirdly, a reduction in the cost of materials, the last combined with a rather vague diatribe against trusts and combines. It may be useful to examine these in detail. With regard to production, as has been mentioned above, the experience of the present can be no safe guide to the prospects of the future. As regards the target under the Bonus System of the Essential Work Order, here again it must be remembered that it is set for a labour force which is not and cannot be fully productive under normal conditions, but which, on the whole, making allowance for physical infirmities and age, has done its best under frequently trying and difficult circumstances. There are also other factors which enter into the question of production, such as proper organisation, which is still in many cases not all it should be. We do not imagine that Mr. Harland falls into this error, but there is still a school of thought in the building trade which thinks of improved production solely in terms of harder work on the part of the operatives without any regard to improvement in the organisation by the management. In this respect also the architect and the building owner have a very vital part to play. As regards controls, it is unthinkable that these should be entirely removed at the end of the war. Such a course would sabotage any housing scheme and lead to serious social unrest. It was the lack of control of labour, and the fact that it was free to gravitate to any work where there was more money to be gained or where it was more convenient to work, that largely caused the failure of the Addison housing scheme after the last war. Many of us will remember schemes which required 400 or 500 bricklayers struggling along with 9 or 10. If such conditions are allowed after this war then the rehousing of the people will be postponed indefinitely. If, then, the Essential Work Order still remains valid in peace as in war, obviously those portions of it which compensate the operative for his loss of freedom must also remain. It has also to be remembered that industrial housing as such has long ceased to be a profitable undertaking to the building speculator. The great bulk of the houses built between the two wars, with the exception of those undertaken by public authorities and charitable trusts, have been middle-class, not working-class, property.

As regards the cost of materials, which Mr. Harland contends show too large a profit, suggesting that the prices have been pushed up by combines, all whose memories

take them back before 1914 will remember that unrestricted competition among manufacturers had created unduly low prices which, however convenient to the builder, were spelling ruin to those concerned. Moreover, the dividends paid by the leading combines in building materials do not suggest undue profits, though admittedly very good profits compared with those obtained over a series of years by the builder. In this respect, Mr. Harland states that the builder must be able to buy in the cheapest market, to buy substitutes when price rings exist, but he does not state how this result is to be obtained. If he wants steel or cement, it is a little difficult to see from whom he is to buy except from the present suppliers. If he suggests buying in the foreign market, presumably in many cases he will be free to do so, but in actual practice, owing to the fact that the price in the past was carefully kept just below the English one, the advantage would be very slight. Mr. Harland ended up on a bellicose note, stating that the building industry must be free to deal with its enemies at home. Obviously housing cannot be held up while the builders and the manufacturers wage a civil war. The remedy in this case must lie with the Government, and it is difficult to believe that any Government in a matter of such vital importance would allow manufacturers to put up the cost of building by excessive profits.

In essence, then, we are in agreement with Mr. Harland as to the end to be gained, but not altogether as regards the means. We would suggest that the correct method to reduce the cost of building is by careful and meticulous organisation, not only while work is in progress, but before it commences, so that there may be no unnecessary delays, no waiting for instructions. Organisation in this sense would go far beyond the actual builder's or architect's organisation. It would include the settlement of all legal points, rights of way, ancient lights, etc., before any work was commenced, and equally the arrangement and agreement of all public services, such as electric light and power, gas, water and sewage disposal, and, as important as any, the question of transport should be decided before any contract is let. To take an example, in the case of a satellite township the first thing, not the last to be installed should be railway facilities. The same should be the case with roads, both on the site and leading to the site. At the same time, building bye-laws could well be clarified and brought up to date. The London Building Act, for one, is an unnecessarily cumbrous document and some of its requirements have frequently led to totally useless extra cost. Why cannot there be one unified and simple building code for the entire country? In housing more particularly the technical difficulties are very slight. Very heavy buildings or those which embody abnormal stresses and strains could still be the subject of special enactment.

We are not of those who consider that everything American is necessarily perfect, but the fact now vouched for that American labour is paid far more than here and man for man produces no more, and yet the cost of building is cheaper than with us, cannot lightly be set aside, especially as there is no evidence that their buildings are in the habit of crashing or are any less efficient than ours. We think that it is on some such lines as we have stated that salvation will come, and are certain that it can only come by the co-operation of all concerned.

NOTES AND NEWS

Building Mission Exhibition.

SELECTED photographs, architectural drawings, tools and other material collected in the United States by the Mission appointed by the Minister of Works are being placed on view at 5, Old Palace-yard, Westminster, from Thursday, April 20, to Friday, April 28, inclusive.

Exhibits will include illustrations of: Methods of obtaining speed in building, including information given to contractors before tendering, time and progress schedules, building methods and architectural drawings; district heating; plant and tools. American methods for providing incentives to output will be illustrated, including news-sheets and certificates and badges awarded to craftsmen. Details of American methods of standardisation (including modular design), and the use of various materials such as timber, wall, ceiling and roof linings, composite walling material and tiles will be shown.

Fire Watchers Needed at St. Paul's.

ST. PAUL'S CATHEDRAL is in urgent need of double the present number of fire watchers. The average strength at the moment is about 20 men a night. Dr. W. R. Matthews, the Dean, is sending out an appeal for volunteers, and his first letters have gone to the Royal Institute of British Architects, and to the High Commissioners for each of the Dominions.

Volunteers have the unique privilege of being given the freedom of the Cathedral. They are expected to watch one night a week; but the hours of duty can be adjusted to suit individual requirements. The watchers are required to be at the Cathedral not later than 9.30 p.m. Subsistence allowance is paid, and bunks, blankets, and messroom accommodation are provided.

Volunteers should send their names to Mr. Godfrey Allen, at the surveyor's office, St. Paul's Cathedral.

London Labour Party and Housing.

LORD LATHAM, Leader of the L.C.C., speaking at the London Labour Party Conference on March 25, said that he viewed with considerable misgiving the possibility that local authorities would be urged and, indeed, compelled to proceed with the construction of 300,000 dwellings in the first two or three years after the war without regard to proper long-term planning considerations. They must let the Government know that they were not satisfied with the promises that they would get something undefined and unspecified after Easter.

The conference passed a resolution protesting against the continued Government delay in simplifying the procedure for the acquisition of land for housing and the fixing of a "ceiling" price for the cost of land. It warned the Government that any failure to plan and provide for houses would lead to disappointment, dismay and discontent.

L.M.B.A. Functions.

SIR GEORGE BURT is to be the guest of honour of the London Master Builders' Association's No. 1 Central Area at luncheon next Monday (April 17), at Derry and Toms. Mr. R. S. Williams, Chairman of the Area, is to preside. Sir George is himself a member of Central No. 1 Area.

Mr. H. C. Harland, President of the Association, is to be the guest of the North-Western Area on April 24.

House Builders on Deputation to Minister of Health.

ON the deputation from the National Federation of Building Trades Employers to the Minister of Health (reported in our last issue), Mr. C. Douglas Calverley represented the National Federation of Registered House Builders, of which he is President.

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From *The Builder* of 1844

Saturday, April 13, 1844. Price 3d.

THE plans of Sir Christopher Wren and of Sir John Evelyn for the restoration of London after the Great Fire are familiar to all who are acquainted with its history. The object of these plans was to effect a recast of the city under circumstances unusually favourable to the success of such an undertaking. But [such attempts] were thwarted by public bodies and individual interests.—*From a report of the Commissioners appointed by Her Majesty to inquire into the most effectual means of improving the Metropolis.*

CHURCH BUILDING IN AFRICA

SIR HERBERT BAKER'S REMINISCENCES

(Concluded from last week's issue.)

STAINED GLASS IN CAPE TOWN CATHEDRAL.

Archbishop West-Jones wanted his old friend Kemp, best-known of the older school of stained-glass artists, to design the sequence of coloured windows. When in England I made a special study of his work and that of other living artists. I formed the conclusion that Kemp, great artist as he had been, had of late allowed his art to become too much of a business; as, indeed, under the stress of competition, had many of the well-known firms. The modern glass which I most admired was that of Christopher Whall in the Lady Chapel of Gloucester Cathedral. It had not the semi-opaque look of a painting on a flat glass sheet, but rather of the light of heaven radiating through the stained glass and broken up as it were through a prism. His colours were mainly the purer primary colours of the rainbow and rarely the browns and sage-greens of the earth.

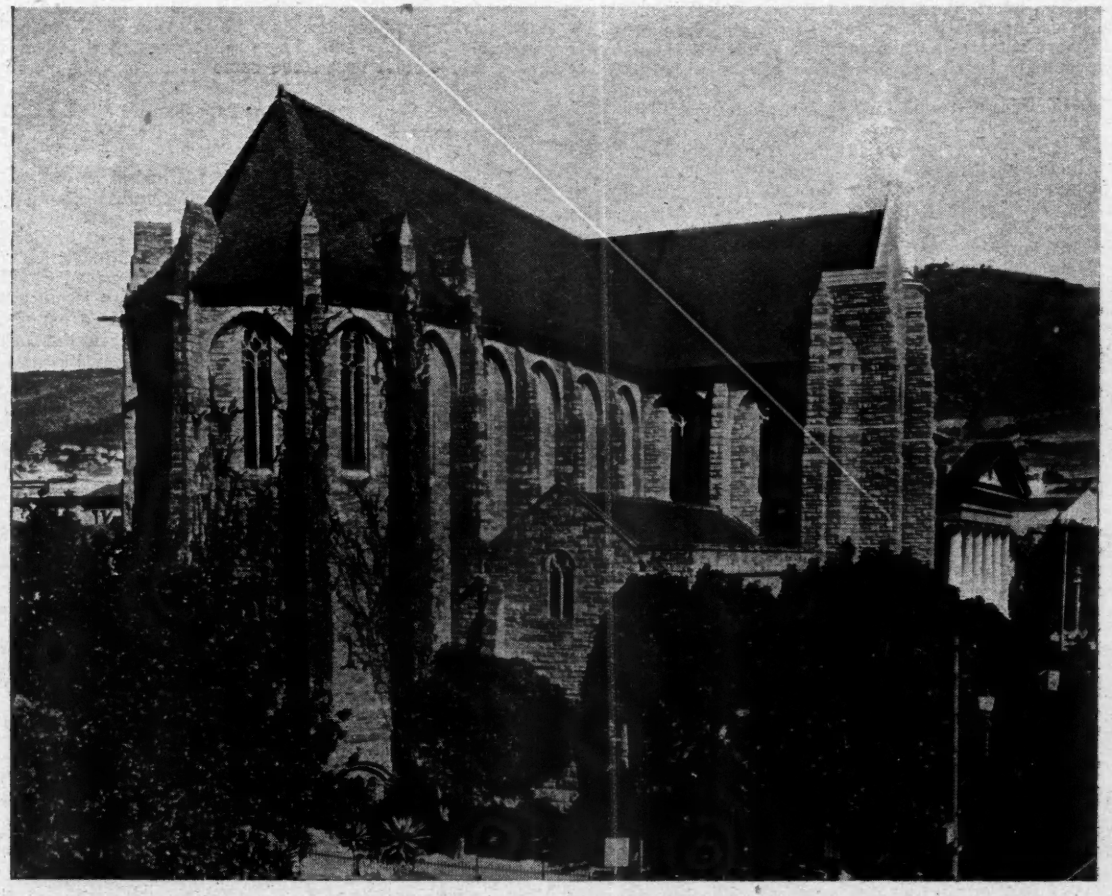
Robert Lorimer, the brilliant Scottish architect of St. Giles' Chapel and Scotland's War Memorial, was a devotee of glass and influenced both Strachan and Hendrie. In his biography his saying is recorded that a window is not "a picture, but that it is a window and not of dull obscure glass, but of glass that sings and sparkles and vibrates with pure and gleaming colour. Look again, go on looking, and you become aware of the form of a saint or angel, priest or king, or perhaps of one of those legends, old yet ever new, where immortal tenderness so quickens for us the faith that our fathers held and have handed on."

That is beautifully said by Lorimer; we may compare it with Matthew Arnold's words in his poem "The Church of Brou":—

"the light illumining
Prophets, transfigur'd Saints and Martyrs brave."

I went to see Whall, and he told me the customary ways of the craft. As a worker in a firm he had found that the different processes were kept in watertight compartments: one artist made the sketches, another the cartoons; one craftsman painted the glass, another did the leading. This practice deadened the original effects aimed at by the artist. He therefore determined that he would try to do all the stages of the artist and craftsman himself; he would, in fact, design and "paint the picture" in the actual translucent glass set up in its leadwork against the daylight in his studio. Another secret was no longer to use the modern glass of uniform thinness, but instead a new make of glass of irregular thickness, which refracts the light with a gem-like sparkle, like the rough glass of the mediæval windows. It was indeed an example of "imperfection means perfection hid."

Kemp was old in years and died soon afterwards; my recommendation then to employ Whall was accepted by the committee. He warned me that thoroughness of method meant limitation of output, and asked if his assistant Parsons might do some of the work; the result of the collaboration in the many-sided apse and high windows at Cape Town was very successful. But there was apparently some little jealousy between master and apprentice; and Whall, when I asked him afterwards to make the glass for the small windows round the apse of Pretoria Cathedral, said he would prefer to do them all himself; and they are



CAPE TOWN CATHEDRAL.

of even higher beauty than those at Cape Town. Parsons eventually set up for himself, and did many lovely windows for me and Fleming, my partner in the Transvaal. But Parsons' windows tended, I thought, to be too rich and strong in colour, obscuring rather than welcoming the light in a radiance of colour. Francis Thompson says in his essay on Milton that "Words of Shakespeare seem to flower from the line; the Miltonic line is inlaid with rich and chosen words." So if one may compare the art of glass and poetry, beauty should radiate in coloured light through the glass rather than come from colour inlaid upon it; beautiful as "Miltonic" windows might and can be!

While on the subject of stained glass I should say that Hendrie of Edinburgh has done most of my windows both in England and South Africa in recent years; he works in the Whall tradition. I was very glad to see when I last went to Liverpool Cathedral that the latest windows there are his work; they are, I thought, the best in the cathedral.

But Douglas Strachan is our most brilliant artist in glass; he is best known by his series of windows in the Scottish War Memorial, and by his brilliant "oratorio" of glass-music in Winchelsea, the many windowed church of the old Cinque Port in Sussex. Stained glass has rightly been called the art which is nearest to music; and it approaches very nearly to music at Winchelsea; even perhaps too near, as it overflows the restraints of the traceried stone panels of the windows, and the orchestral drama depicted takes possession of the church. Artists whose medium is glass —and indeed all artists—would do well to meditate on Alice Meynell's poem "On Silence." She sings praise of silence for

"moulding my Mozart's tune,

. . . . . .

Thy magisterial ways.
Man's lovely definite melody-shapes are thine,
Outlined, controlled, compressed, complete, divine."

In glass windows the "Magisterial Way" is the control by the spaces of pure light surrounding the colour-melody.

I was fortunate in being able to employ Strachan's art in a country church at Woldingham in Surrey; in a diadem of small windows high in the stone vaulting round the apse; they are a storied fantasy in radiated colour.

Unlike that at the Mother City of Cape Town, the cathedral at Pretoria has not an ancient or a dominating site. The new high choir that was built after the South African War, attached to the old unworthy nave on a limited site, is in danger of being dwarfed by taller buildings that may arise in its vicinity. The choir and its aisles are built outside and inside of the hard local stone of the surrounding kopjes, rough-hewn and of varying slatey colours, dull blues, greens and greys, mixed with the burnt-sienna iron-stains. The ceilings are vaulted in concrete, plain and rough surfaced, and the windows of the choir and round the semi-circular apse rise up and appear deep set in the broad splays of the vaulting; and there shine the "glowing sapphire tints, and amethyst and ruby" of Whall's illumined glass. The windows thus cutting deep into plain barrel ceiling may be called a classic feature; it is common in Renaissance churches; and I have always admired this effect in St. Sulpice in Paris.

This coronal of splendour and the rich effects of light and shade round the curves of the apse might itself form the reredos to the red stone altar; with the addition, as I designed, of a stone crucifix by a good sculptor, set in the stone wall so as to be seen from the nave between the altar and the coloured windows. To overcome the difficulty of ventilating the sanctuary with the very high windows and the absence of opening panes in the windows, the bright light from which kills the colour-picture, I generally built very small windows in the thick wall low down when the light could not shine in the eyes of the congregation. To enter this sanctuary from the glare and restlessness of the streets of hot Pretoria always brought to me a sense of spiritual peace and beauty.

The man who did most for the building of new churches in the Transvaal was Michael Furse, Bishop of St. Albans, at first Archdeacon of Johannesburg and then Bishop of Pretoria, and indeed his influence was felt all over South Africa; he had the gift of inspiring others with his faith, energy and courage. His crusader spirit was invaluable in those pioneer days of adventure and effort in the new colonies.

In contrast to the dark tones of Pretoria the cathedral at Salisbury, Rhodesia, is built of the light grey granite which is the foundation rock of much of the country: granite forms the hills of the Matoppos, and the walls of Zimbabwe are built of it. Here, too, the semi-circular apsidal choir and aisles and the transepts were first built. The design would be called more classical in character. The ceilings are vaulted and domed in concrete. The apse here has no windows; the soft tones of the semi-circular unwindowed wall, lit in front from the high side windows of the choir, are of a restful beauty in the fierce light of the tropical atmosphere.

I should like to see, though it cannot now be in my days, a circular tower which I have designed, of Pharos height like those at Ravenna, built to be seen from afar. The circular form was suggested by the famous prehistoric round tower at Zimbabwe; and by the practical structural fact that the circular wall, which being without angles needs no quoin stones, is easily built with very small stones, like the numerous circular flint-built towers of East Anglian churches. The granite in the neighbourhood of Salisbury, though very hard, can be easily knapped, when the knack is learnt, into small blocks like the paving set-stones of French and Belgian roads. The unknown native masons who built the now ruined walls in Rhodesia, had evidently acquired this mason-craft.

It was once thought that a portion of the cathedral should be a memorial to the founder of Rhodesia; and I made a design for three niches in the wall of the transept, the central one to contain a bronze bust of Rhodes, with those of his great lieutenants, Albert Grey and Dr. Jameson, on either side of him. Tweed was to be the sculptor. The design was considered but nothing came of it. A bay of the nave was added later as a memorial to Drummond Chaplin who, as Governor, greatly served the colony.

When in Salisbury I had occasion to admire the energy and devoted service of Bishop Paget. He wished to meet me on my short visit, when I was later in Rhodesia, and being then at Bulawayo, 300 miles away from Salisbury, and having but one free day, he motored all through the night on the rough, unbridged road; spent most of the day with me, and returned the same night for his meetings the next day.

Masey, who had helped me at Cape Town, built the church at Bulawayo. It is a good church, and I regret that I have no view of it.

I made the first designs for the cathedral at Johannesburg; but for their completion and the building of it after I had left South Africa my friend and loyal partner, Frank Fleming, was the architect. It is a noble church, built outside in the hard local whinstone, but I think it suffered a little inside in being faced with plaster instead of stone for which it was originally designed. This is no torso, as are the other cathedrals in Africa, but is a completed whole. Some rich colour has been added in the baldachino and the pulpit; and the walls of a beautiful eastern chapel are enriched by the names inscribed in golden letters on marble of the Fallen of Johannesburg in the last German war.

These choirs and sanctuaries, with their high rich diadems of windows in Africa's glaring atmosphere, have varied effects of light at different times of the day. I should like to think that in the busy African cities these choirs may be at all times, as in Force Stead's poem "Uriel," havens of

"ordered beauty; out in the rasping street,
Chaos jolts on and jars; here Worship dwells,

. . . . . .

Unresting Time finds here his resting place,
Unchanged, yet not monotonously the same,
For here the morning and the evening lights
Have their interpretation.

Here noon is darkened, that the inward eye
May shine; the outward sun, shorn of its glare
Delayed by coloured panes, glows glorified.
There, in the Sanctuary, where all lines converge.
There, in the darkness, where the angels tremble."

The finish of the poem is beautiful and apt, but it would be too long to read here.

In the chapel at the new Church House, unscathed by the bomb which ruined so much of the building, I have given an example of the views I have formed about the altar; on

its inherent beauty of material and of an artist's workmanship, independent of its coverings; of its relation to the apse as its reredos, and of the silent spaces around it. These ideals have been strengthened in later experience, and have not always been realised in the sanctuaries I have built in Africa.

When in Kenya I was asked to advise how the church at Nairobi could be added to and completed. The portion already built had been designed by an eminent English architect, but he had, I think, no experience of the conditions of light under the equatorial sun and its effect upon church architecture. I made a design for converting the existing chancel into the nave, for which it was more suited, and building on a new apsidal chancel with more subdued lighting. These plans were approved by the committee but, as far as I know, were not carried out.

I planned for this church a large cloistered court or atrium beyond the great doors of the nave. In Mombasa a memorial service to Queen Alexandra had been held, and I was impressed by the fact that all races, non-Christians, Indians, Arabs and Natives, desired by their attendance to show their loyalty to the Throne. But there was not room for all in the church, and they gathered disappointedly outside; a political grievance was, I heard, made by the Indians of the affair. It then occurred to me that the chief churches in the countries of the Empire, with mixed races and religions, should have atriums attached to the entrance of the nave. This plan would be in accordance, I think, with the custom of the early Church, in providing for those not in full communion with the ecclesia. The large western atrium of the 11th century church, St. Ambrogio, at Milan, is a well-known example. May it have been spared in the recent destruction of the city! In such cloistered places eager but not yet Christian people might on special occasions hear the services from loud-speakers, and see something of the service through the big opened nave doors; and be spectators of ceremonial processions.

I was able to put this theory into practice when I designed a church in Cairo in memory of the much beloved Canon Gairdner; a small atrium forms an entrance court to the nave, though here the "western" baptistery was held to be of more importance than the doors between atrium and nave. The mediæval cloister was, I think, originally an entrance court, as at St. Ambrogio; but as it became a place of privacy for the monks it was moved to the south side of the church for the warmth of the sun.

I designed another small church at Maadi, Cairo; and one at the railway centre of Atbara, in the Sudan, which was built by the enterprise and skill of the engineers and staff of the railway, inspired by Bishop Gwynne.

A large entrance cloistered-atrium was, I thought, appropriate for a primitive but ambitious cathedral and its attendant buildings, for which I made sketch designs, at Juba, in the missionary diocese of the Upper Sudan. I enjoyed working for the young active Bishop, and planning his ideals for the future; and I trust that he may see some of them realised. The great war road across the continent from the western Bight now reaches the Nile at Juba, and there is a halt there on the great Cape to Cairo Airway; so his ideals and large views may prove to have been justified.

It will be noticed that, except for the coloured glass, there is an absence of decoration in these churches. In my day this abstinence was imposed by necessity; there were not in the country the artists with whom an architect could work in sympathetic collaboration; and I was inclined towards the policy that any extra money should be spent on adding to the scanty fabric and accommodation; the "decorative period" of African architecture would be the glory, I thought, of a more prosperous future. I have felt that nothing but the best art would be good enough for our churches and in harmony with those rough stone walls, of which so many of the churches were built.

As for the outside walls of the buildings the sun in those latitudes is the best ally of the architect. He has only to proportion his windows in well-ordered spaces of plain walling, under wide overhanging eaves, and the sun does the rest; it casts deep shadows with soft reflected lights in contrast to the sunlit walls, be they of stone, brickwork or whitewashed plaster.

It was the poet, Lionel Johnson, who said that "progress in art was progress towards simplicity." In those foundation days of the church in Africa a simplicity was forced upon us by circumstances. Our ideal, however much it may have been beyond our powers of attainment, can be best expressed in the words of Shakespeare in his beautiful poem "The Phœnix and the Turtle":—

"Beauty, truth, and rarity
Grace in all simplicity."

TWO VICTORIAN ARCHITECTS

ECCLESIOLOGICAL SOCIETY LECTURE.

Mr. Harry Redfern, F.R.I.B.A., lectured to the Ecclesiological Society on Saturday, April 1, on "Some personal recollections of two Victorian architects—William Butterfield and Henry Woodyer." Captain H. S. Goodhart-Rendel, P.P.R.I.B.A., who was in the chair, said of the lecturer that he was "an artist speaking of artists." Mr. Redfern said he daringly consented to give the lecture in the hope that it would stimulate interest in, and rescue from possible oblivion, the names and works of these two worthy Victorian architects.

William Butterfield, said the lecturer, was born in London two years after the date of Napoleon's retreat from Moscow, and died in 1900 at the age of 86. He seemed to have received little or no architectural training, starting his career as an apprentice to a Worcester builder, from whom it was evident he acquired his eminently practical building methods. His religious temperament probably stimulated his interest in mediæval architecture, his knowledge of which was self-acquired.

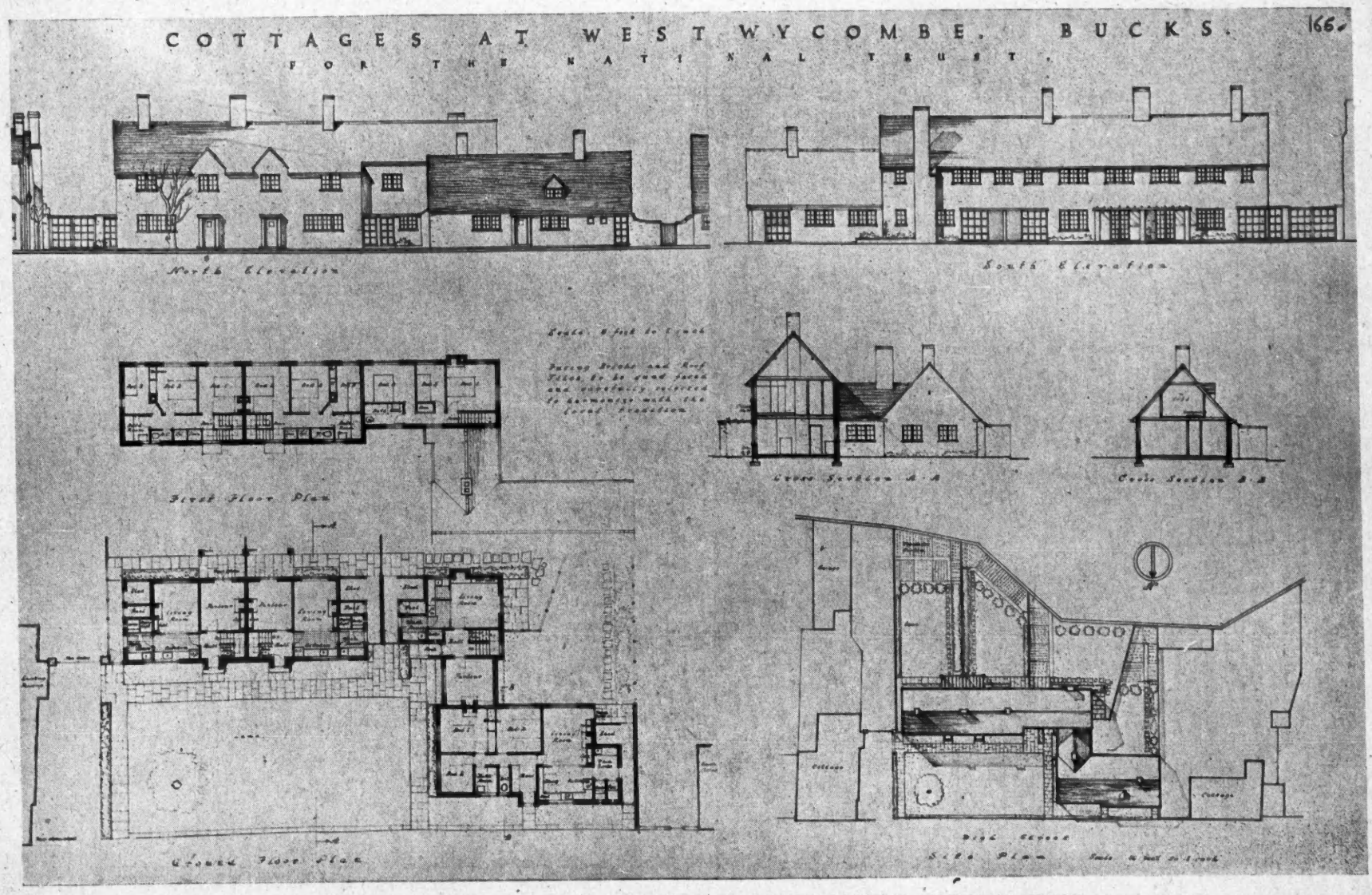
A life-long bachelor, he lived and worked in an Adam house in the Adelphi, and it was here that the lecturer joined his staff in 1877. He found in his master a man not unlike Gladstone in appearance, abstemious in all things, and a devout churchman, who took no holidays himself and allowed few to his staff. He received his first important commission at the age of 31, when Beresford Hope employed him to convert the mediæval buildings of St. Augustine at Canterbury into a missionary college. This connection led to his being commissioned in 1859 to design the renowned church of All Saints, Margaret-street, where he habitually worshipped, and the portfolio of drawings of which stood behind his chair for more than thirty years after the building was completed. Four years later his reputation as an ecclesiastical architect was finally established when he built St. Alban's, Holborn. In 1864 he began to build at Oxford, where his most important work was Keble College. The chapel, wherein hangs Holman Hunt's famous "Light of the World," was finished in 1877, and was said to have cost £60,000. He also built many churches in London and the provinces, including St. Matthias's, Stoke Newington, St. Augustine's, Queen's-gate, and All Saints, Babbacombe, to mention but a few. In 1878 came the commission to design a cathedral for Melbourne (still lacking the two western towers)—he had built the cathedral at Adelaide some years earlier. He was responsible for the new chapel at Rugby School, together with reading room and art museum dedicated to Frederick Temple, father of the present Archbishop.

Henry Woodyer was the more important of Butterfield's only two pupils. The son of a well-known Guildford physician, his earliest architectural work was done in that neighbourhood. When he married he acquired an attractive estate at Graffam, where he lived and had his offices. Like his friend and master, Butterfield, he attended to his own correspondence, but, unlike him, he wrote an undecipherable hand. During inclement weather his tall, rather spare, picturesque figure was always seen wearing a long Inverness cloak which had become green with age. Into these delightful surroundings in the Spring of 1876 the lecturer entered as a pupil, traversing the three miles to and from the office on a "bone-shaker."

One of Woodyer's early works (about 1858) was St. Raphael's, Clifton, with almshouses, commanding an eminent position on the steep cliffs of the River Avon. This was followed by designs for several community buildings, including the Devon Home of Mercy, Bovey Tracey, and St. John Baptist, Clewer. Of his many new churches, the best known were perhaps those at Highnam, near Gloucester (for T. Gambier Parry), and St. Stephen, Clewer. He was a sympathetic restorer, in accordance with the thought of his time, as at Eton College Chapel. In addition, he designed many large country houses, *e.g.*, Coombe Lodge, Holme Park, and Muntham Court—for the Dowager Marchioness of Bath.

In common with Butterfield, Woodyer had an intense dislike for publicity Neither was a member of any architectural society, and Butterfield would not even be present to receive the R.I.B.A. Gold Medal awarded him in 1884. Both men were true artists, and although their designs differed so widely they were complementary each to the other.

The speaker's personal reminiscences evoked considerable enthusiasm among the audience at question time, and the chairman announced the Society's intention to print as a "transaction" Mr. Redfern's paper in order to put on record a unique occasion.


COTTAGES AT WEST WYCOMBE, BUCKS.
FOR THE NATIONAL TRUST.
166.
North Elevation
South Elevation
Scale 8 feet to 1 inch
Existing Bricks and Roof Tiles to be used facing and externally restored to harmonize with the front elevation
Cross Section A-A
Cross Section B-B
First Floor Plan
Ground Floor Plan
Site Plan

COMPETITION FOR RURAL COTTAGES, WEST WYCOMBE, FOR THE NATIONAL TRUST.

WINNING DESIGN: By TOM MELLOR, A.R.I.B.A., G. GRENFELL BAINES, A.R.I.B.A., and J. A. ASHWORTH, A.R.I.B.A.

COMPETITION FOR RURAL COTTAGES, WEST WYCOMBE

FOR THE NATIONAL TRUST

THE award of the assessors in this competition (Messrs. Darcy Braddell, Edward Maufe and William Weir) is as follows:—

First (100 guineas): T. Mellor, A.R.I.B.A., G. G. Baines, A.R.I.B.A., and J. A. Ashworth, A.R.I.B.A. (Design No. 166).

Second (30 guineas): G. Blair Imrie, F.R.I.B.A. (Design No. 127).

Third (20 guineas): J. L. Denman, F.R.I.B.A. (Design No. 45).

The assessors have furthermore specially commended eight additional designs from the following competitors: Frank H. Bromhead (two designs submitted, 67a and 67b); H. Farquharson and D. H. McMorran (182); C. Roy Fowkes (80); Miss G. Mary McKenzie (207); McKewan and McKewan (198); E. S. North (44); and Philip Evans Palmer (113b).

All the designs (257 in number) submitted will be exhibited at the Regent-street Polytechnic School of Architecture, Little Titchfield-street, W.1, from Monday, May 29, to Saturday, June 3, between the hours of 9.30 a.m. and 5 p.m.

The assessors' report is as follows:

In making our award we have had to take into consideration a number of different factors, both practical and æsthetic, which are material to this problem, and balance their values very carefully. There is the character of the village, and the necessity of the new buildings making harmonious relations with it; this will apply not only to the expression of each proposed cottage but to the arrangement of the whole as an architectural composition taking a natural, unforced place in the village street. These are purely æsthetic problems. There are others of a practical nature which claim serious considerations; for example, the number of cottages which can profitably be built upon the site without overcrowding; the simplicity of their structure, which will bear directly upon the cost; the convenience of the internal planning of each, so that it shall be suitable to the lives of the persons who are intended to live in it; the size of rooms, so that they shall be sufficiently generous without being extravagant; a sensible layout of the irregular site, so that the utmost is attained from it. We have had to balance all these factors in order to assess a correct value to each, since it is certain that no single design will outshine the others on all sides of a problem that has proved by no means easy to solve.

We are happy in being able to assure you that, in our opinion, you have in No. 166 a design which has summed up all these salient points *as a whole* and made the best of them: therefore, we have placed it first.

This design provides four cottages without overcrowding—three cottages of two stories and one with ground floor only. The plans of all the cottages are economical and practical. There are no entirely north rooms as in so many of the designs, yet the housewife has the opportunity, during her work, of seeing, at a reasonable distance, what is going on in the village street.

Probably the best point in this design is the way it has been subtly influenced by the site itself, for both the shape of the plan and the shape of the structure are a masterly response to the special characteristics of the site. The general layout accords with the shape of the site, and, with regard to the composition of the building, we agree with the winner when he says in his report, "The contrasting heights of the buildings on the east and west sides of the site call for a group which forms a link." By setting the three two-storied cottages back from the road along about two-thirds of the east end of the site he has managed to preserve the view of the interesting west gable of the existing cottage abutting the site on the east, and has, in fact, used this as one side of a shallow courtyard. On the other side of the site he has planned a one-storey cottage, which cleverly echoes the scale of the existing cottage abutting the site on the west, thus providing the other arm of the courtyard. This seems to us to have solved in a most admirable and sensitive manner the extremely important question of obtaining a really satisfactory architectural composition to fit in with the existing adjacent buildings.

The design is expressed in a traditional manner. The plan of the internal accommodation is very good for the purpose of all essentials, though it is not faultless, and should be remedied in places. The position of the chimney stack in the living room of the most westerly of the two-storeyed cottages is unhappy; it is unduly blocking the south aspect of this room, and is the cause of the garden to the ground floor cottage being unnecessarily narrow. There seems to us every reason to move this stack round to the face of the west wall, where it need not be detrimental to the exterior design, and will be very beneficial to the interior. We must also point out that there are no w.c.'s on the ground floor to the two-storeyed cottages—a serious defect, but one which can be rectified without great rearrangement of plan.

We would like to draw your attention at this point of our report to one or two aspects of planning for the rural worker which have escaped the notice of a very large number of competitors. The first of these is the question of the conservation of heat. This is a matter of the greatest importance, yet it will be found in numberless instances of designs sent in that three sources of heat are asked for—one for cooking, a second for domestic hot water and a third for space heating. Until his earning capacity is drastically altered, no rural worker can afford the consumption of fuel on such a scale as this equipment implies.

Another concerns the position of sink to cooker. Many competitors have put their cooking ranges in a living-room-kitchen and their sinks in a scullery, either adjacent to or even across a passage. This leads to continual crossing and recrossing of the living-room-kitchen, and the opening of doors, since a sink is in constant use during the process of cooking. It should, therefore, be placed as close to the range as is practicable.

Many competitors have added to the discomfort of the housewife by making their scullieries act for their washhouses as well. This leads to great congestion on washing days. A separate washhouse is a necessity, but it should not be placed well in the inside of the cottage, and thus fill with steam when in use; the washhouse should preferably be an outside building of fair size, within easy access of the back door, and preferably attached to the main fabric.

Bathrooms are often found placed in these washhouses; there is no objection to the ground-floor bathroom in principle, but, if it has to be reached from the first-floor bedrooms by traversing first the hall, then the living-room, past the scullery and finally across back lobby, all privacy of access to it goes, and objection will certainly be taken by the household.

There is a prevalent idea that it is good planning to provide a quite separate small working kitchen and a large living-room where the meals will be taken. In practice, this does not work out, for meals are served near where they are cooked, to save trouble, and the large living room is thus not put to its best and fullest use. The best solution seems to be that adopted by the winning design of providing a working end to the living room itself capable of being shut off if desired. . . .

The design No. 127, which we have placed second, has a composition not unlike that of the winner, but it provides only for three cottages, and gives two somewhat disjointed building masses, whereas the winning design has the great merit of leading round as one composition. It is charmingly sympathetic to the beauty and character of the village, and is pleasantly redolent of the best of rural life. It has, however, several of the undesirable features about its plan to which we have already drawn attention.

No. 45 is a much more formal composition. It is exactly symmetrical in its masses, very well balanced, but has the air rather of a block of almshouses than that of a group of cottages as such. Like both the other prize winners, it uses the shallow courtyard plan, but, unlike them, does not use the cottages at each side of the site as integral parts of the composition, thus failing to relate itself quite so easily and successfully to the village street. It provides four cottages, certainly more expensive to build than the others, and the end ones suffer materially being overshadowed by the centre block.

We have, in addition, commended in all eight other designs, and append brief comments to each:—

Nos. 67a and b.—Very nice quality of elevations with a sound composition comprising a block of four cottages, with plans more suitable to the suburban dweller than for the purpose in hand.

No. 182.—A charming and distinguished elevation, showing three cottages under one roof, separated on the ground floor by covered passages, though one of which is somewhat bogus. The plan has several of the faults already mentioned.

No. 80.—Simple group of three cottages. Well-thought-out equipment in a plan which has, however, several undesirable features.

No. 207.—A block of four straightforward cottages under one roof, simply and sensitively treated in elevation. The plan is cramped.

No. 198.—A block of three cottages under one roof. One of the best thought-out plans, but a dull composition and poorly conceived elevation.

No. 44.—Most distinguished conception, consisting of four cottages under one roof, divided by a central passage and surmounted by a lofty pigeoncote. Hardly suitable, however, as a project for rural workers' cottages.

No. 113b.—Contains three cottages arranged in much the same composition as that of the first two prize-winners. They are sympathetically treated for their place in the village, but the plan of the single cottage has serious faults.

We have been particularly sympathetic toward those designs which show the more modern tendencies, but unfortunately such designs have either proved themselves complete strangers to the village or have been planned in a way possibly suitable for the week-ender but not for working-class tenants as specifically mentioned in the conditions.

COMING EVENTS

Tuesday, April 18.

HOUSING CENTRE. Mr. Ted Bramley on "Communist Party's Housing and Planning Policy." 13, Suffolk-street, S.W.1. 1.15 p.m. (buffet lunch, 12.45 p.m.).

ARCHITECTURAL ASSOCIATION. Mr. E. L. Bird on "Architectural Notes on a Recent Visit to Sicily," preceded by nomination of officers and council for 1944-5. 34, Bedford-square, W.C.1. 6 p.m.

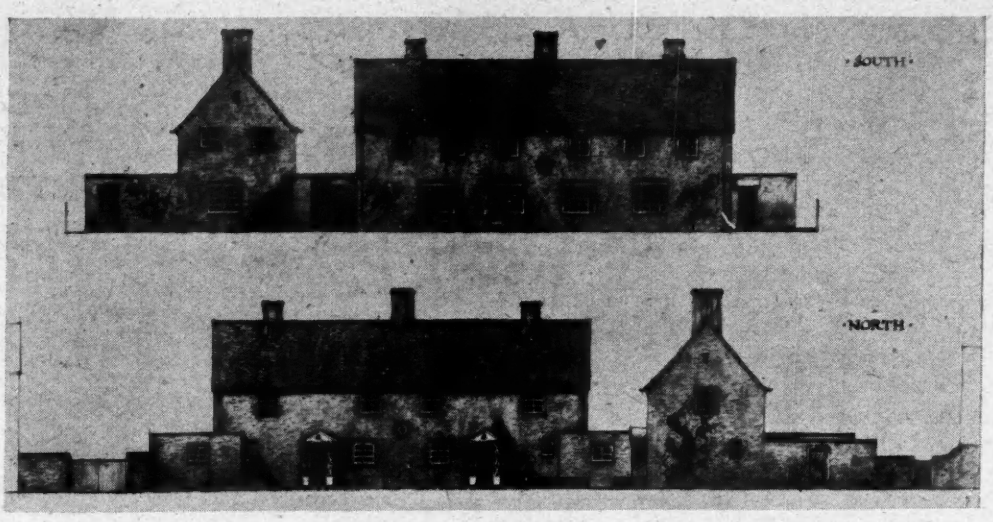
Wednesday, April 19.

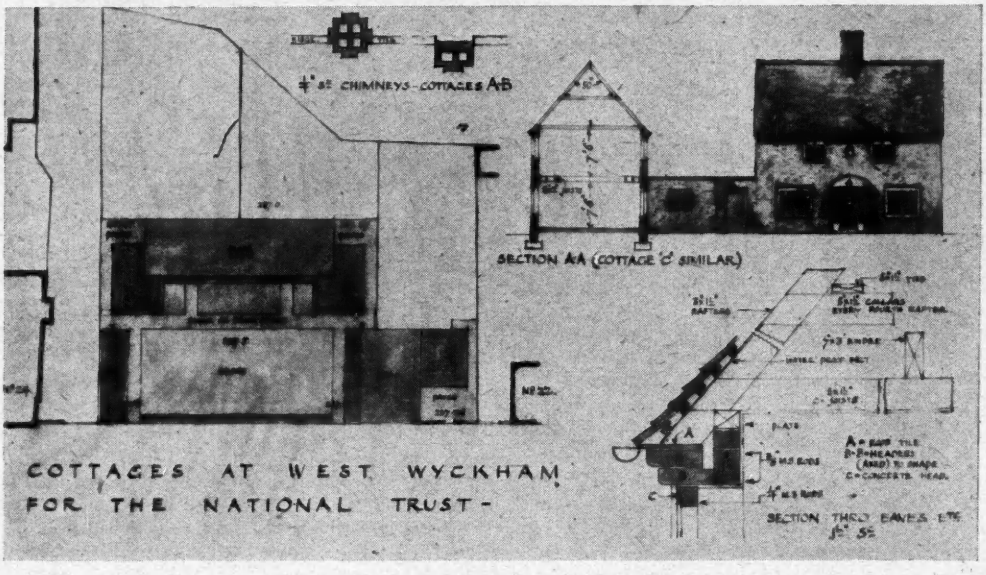
ASSOCIATION OF BUILDING TECHNICIANS. Mr. Bernard H. Cox, F.S.I., on "My Architectural Tour of the Balkans." 5, Ashley-place, S.W.1. 6.30 p.m.

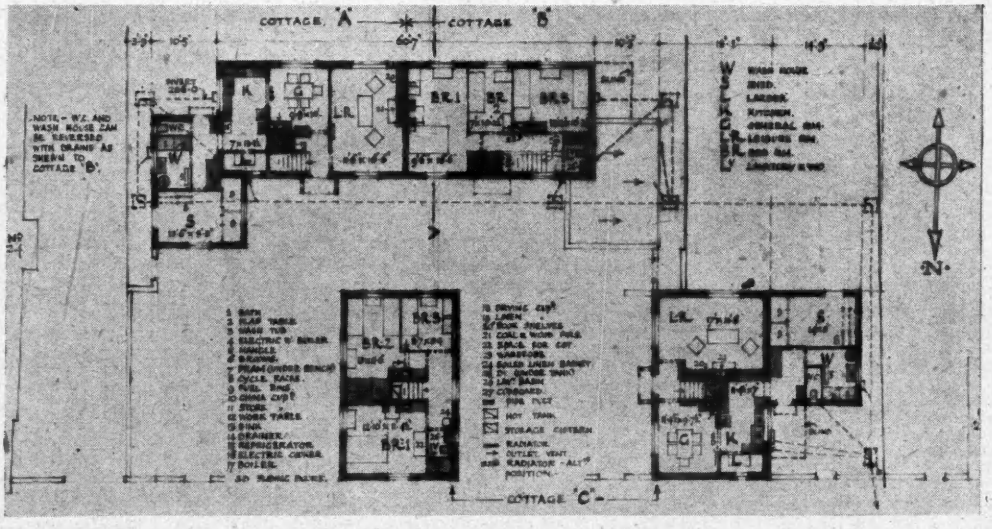
Thursday, April 20.

TOWN PLANNING INSTITUTE. Professor Sargant Florence on "Planning and Industry." Essex Hall, Essex-street, W.C.2. 6 p.m.

WOMEN'S ENGINEERING SOCIETY. Conference on "Women in the Building Industry." 20, Regent-street, S.W.1. 7 p.m.

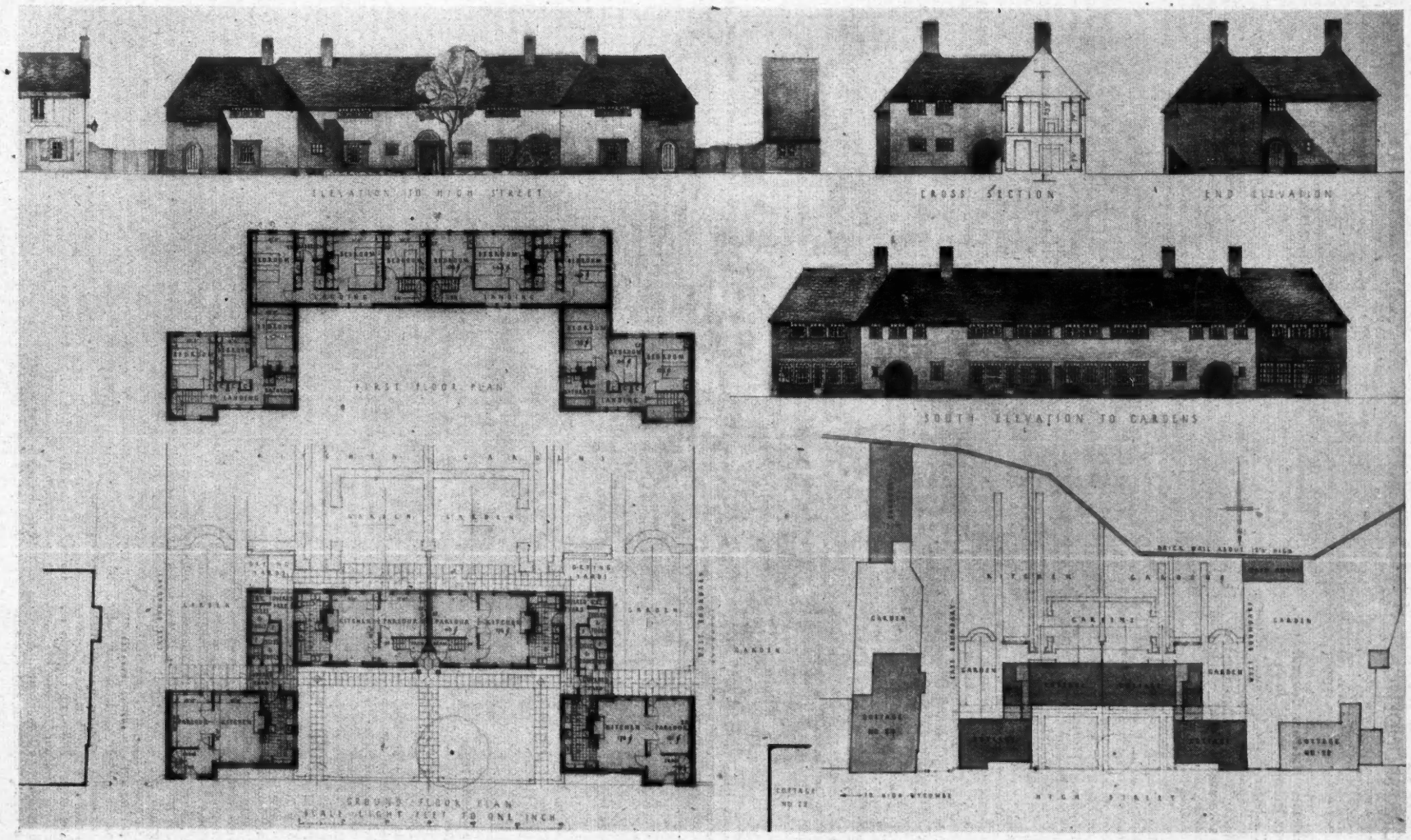



4" ø CHIMNEYS - COTTAGES A & B
SECTION A-A (COTTAGE 'C' SIMILAR)
COTTAGES AT WEST WYCKHAM
FOR THE NATIONAL TRUST -
SECTION THRO' EAVES



COMPETITION FOR RURAL COTTAGES, WEST WYCOMBE, FOR THE NATIONAL TRUST.

DESIGN PLACED SECOND : By G. BLAIR IMRIE, F.R.I.B.A.



COMPETITION FOR RURAL COTTAGES, WEST WYCOMBE, FOR THE NATIONAL TRUST.

DESIGN PLACED THIRD: By JOHN L. DENMAN, F.R.I.B.A.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

"Architects' National Council."

To the Editor of *The Builder*.

Sir,—The letter of the President of the Institute of Registered Architects in your issue of March 31 contains nothing that I have not advocated in your columns on several occasions during the last six years. None the less do I welcome Mr. Burr as a co-advocate. That I go much farther than he does in advocating a federation of all professions is a point I need not labour now. Suffice it to say that I aim at the co-ordination of all multiple institutions, and, in some cases, at their amalgamation.

The engineering professions are now considering co-ordination, as Mr. Parfett pointed out in his presidential address to the Society of Engineers, and I understand that the wind is favourable to success. In that case they would have the honour of being the first great multiple body to achieve a voluntary success. The same reasons that have impelled them should impel the architectural bodies. The Minister of Works asked that all building interests should speak to him with one voice. If tiny associations cannot blend or harmonise their interests, what hope is there for intermixed races in the post-war world?

Frankly, I think that the resolution passed at the conferences between the architectural bodies was a tactical error. It plays exactly into the hands of the unwilling body. It would have been much better to have proceeded with the co-ordination of the willing bodies. Half a loaf is better than no bread. The engineering bodies have shown more wisdom. The force of the argument for co-ordination is so great, so overmastering, that it may be safe to assume that it will be achieved sooner or later voluntarily or by State direction.

The policy of *laissez faire* has led us into a wilderness where the unrestrained multiplication of associations has led to overlapping of branches. I recognise limits to State control. Perhaps I might define its duty in this direction as the prevention of economic waste.

A. W. Crampton.

8e, Woodchurch-road, N.W.6.

Building Methods in U.S.A. Report.

To the Editor of *The Builder*.

Sir,—The correspondence on the above subject, appearing during the last few weeks, has been interesting and instructive. The points under discussion, however, have been directed, for the most part, to the organisation of large contracts: little has been said as to the type of work usually carried out by the "medium builders."

The use of progress charts for medium and small contracts, in the Provinces, whilst not common in pre-war days, was becoming more general amongst the more progressive contractors.

As to whether builders should, in future, take off their own quantities for competitive work there can be but one answer; and that is, No! In pre-war days it was not uncommon for a provincial builder, with a turnover of, say, £50,000 to £100,000 per annum, to quote in competition for, on an average, at least four jobs per week either in response to invitation or, in the case of public works, in answer to advertisements. The staff engaged on this work, in addition to one or more principals, might be one building surveyor; the typing extension and checking of the quantities being "run in" with other work by the remaining staff of, say, half a dozen. At a modest estimate the total overheads on *cost of work done* would be from 10 per cent. to 12½ per cent. If the contractor secured one job in ten he would be fortunate.

What would be the position of a contractor who had to take off his own quantities? He could not afford to refuse to tender for jobs for which invitations were received. His staff would have to be very considerably increased, with a consequent increase in overheads, or he would have to limit the number of his tenders, as each job of any size would occupy a surveyor and staff for at least a fortnight. The substantial increase in overheads would inevitably be passed on to clients for whom work was done and so raise the average cost of buildings over the whole country. In any case, where are the additional surveyors needed to come from?

If contractors are to assist in reducing the cost of building by means of better organisation, the following variations in current practice would appear to be necessary:—

(a) The number of tenders invited for each job should be limited. As a means to this end a nominal tendering fee of one-tenth of one per cent. should be paid to each builder tendering. Each building owner would thus be responsible for bearing the major cost of preparing the tenders he calls for. At present the cost of preparing the contractor's *unsuccessful tenders* is paid for by the clients for whom he *does* work.

(b) The use of the "Standard Method of Measurement" in the preparation of quantities should be compulsory and not permissive, as at present. The general use of the Standard Method of Measurement would, in the long run, lead to lower prices, as contractors became accustomed regularly to price on that basis. Under the present varying conditions a close examination of each set of bills of quantities is needed before a basis of prices can be arrived at. Omnibus descriptions and "inclusive" preliminary clauses lead to inflated schedule rates or an eventual loss to the contractor.

(c) For each job, where appropriate, a progress chart should form one of the contract documents. It should show the dates on which the necessary plans, details and/or instructions, for each section of the works, are to be delivered to the contractor.

(d) Under present Forms of Contract it is usual for the contractor only to be under a fixed monetary penalty for delay in completion of the works. The contractor can only obtain damages for delay, caused by architect or building owner, by legal process; he will usually consider this remedy too costly and troublesome or, "for the sake of favours to come," a course inadvisable to pursue.

If any delay be caused by omission to supply plans, details and/or instructions, by the appropriate date given on the progress chart, the contractor should be entitled to claim *double* the penalty for non-completion to time for any such delay. A mere extension of time does not repay the contractor for inevitable loss in production, or cost of "switching the work." Building operatives are immediately aware of delays due to lack of instructions and, in consequence, frequently lose interest in the job. A "guaranteed week" would be no help to output if work is slowed down pending "alterations to plans."

(e) The time has surely come when all Forms of Contract should reflect the spirit of co-operation between building owner, architect, surveyor and contractor, and every member of the R.I.B.A. be pledged to use the form for which his Institute is responsible. No member of the R.I.B.A. should be in a position to refuse to use the R.I.B.A. Form. Builders are chary of "pressing" for the R.I.B.A. Form when another is offered or when unfair amendments are inserted.

Provincial Builder.

A Problem in Arithmetic.

To the Editor of *The Builder*.

Sir,—Your readers may be interested in the following report of a conversation between a building trades operative and a site cashier:—

Operative: "My money was wrong last week."

Cashier: "Was it? Well, I can soon find out. Let me see. . . . Travelling Time, yes, that's all right. So is the three hours Guaranteed Time. Your Overtime is included . . . also your Subsistence Allowance. Yes, I've deducted the Hutting Charge of five shillings, and Insurance one and tenpence, a penny for the Red Cross and threepence for the Hospital. Your Holidays with Pay Stamp doesn't affect you, but I've knocked off the usual five shillings for War Savings. I've paid you the extra penny an hour for the time you were unloading Cement and also for that day you wore Rubber Boots. Your Cycle Allowance is O.K.; so is your Bonus. You've repaid that ten shilling sub. Then, of course, I've deducted your Income Tax. I think that's all. . . . It seems all right to me."

Operative: "But what about my wages?"

Cashier: "Hell! I'd forgotten that!"

Bulwick, Northants. N. Jackson.

OBITUARY

Flying-Officer Kenneth Marriott, D.F.M.

Mr. Gordon Marriott, A.R.I.B.A., writes: May I, through the medium of your paper, inform friends and acquaintances that my brother, Flying-Officer Kenneth Marriott, D.F.M., has recently been killed in air operations over Germany. Although a young lad when he chose the profession of quantity surveying, he made excellent headway, and would, I am sure, have made a fine career. He volunteered for service in June, 1940, and from the rank of sergeant rose to flying-officer. As a younger brother he set a supreme example of courage and devotion to duty that has no equal to me; indeed, he won his D.F.M. in 1942 for this reason. He will be missed beyond the telling of words.

War Savings.

At an adjourned meeting of the War Savings Committee of the Building, Civil Engineering and Allied Trades (Mr. George Hicks, M.P., in the chair), the following were present: Mr. A. H. Adamson, Mr. E. J. Chapman, Mr. F. Coleridge Simpson, Mr. W. Cotter, Mr. W. T. Creswell, K.C., (Hon. Sec.), Mr. E. C. H. Jones, Mr. F. N. Withers, and Mr. A. W. Sanders.

The Chairman stressed the necessity for all employers to impress on their employees the value and importance of participating in Savings Groups, and of the need for full co-operation from the trades union side.

Mr. E. J. Chapman gave figures of the amounts invested in Government securities from Holidays with Pay funds and suggested that operatives might be induced to invest some of their official holiday share-out in National Savings.

A Publicity Sub-Committee was set up.

A draft letter to be sent out to all employers was approved.

Mr. Stevenson, President of the National Federation of Building Trades Operatives, was invited to become a vice-chairman of the main committee.

PREFABRICATION

DISCUSSION AT THE R.I.B.A.

VARIOUS aspects of prefabrication came under review during a discussion on the subject held at the house of the Royal Institute of British Architects, in Portland Place, on April 4. Mr. A. C. Bunch presided, and the principal speakers were Messrs. G. A. Jellicoe, R. H. Sheppard and Anthony Pott.

MR. JELLICOE said it was no use architects saying they would not have prefabrication. The architect who got in the way of the designer would be swept aside. What part had architects to play? They had to design things that would pass through the machine. The Empire State Building was an example of one that had passed through their machine; in the original design the window reveals were deep, but this feature had been removed so as to facilitate the passing of the work through the machine. On the other hand, the façade of the I.C.I. building was a type of design on the hand basis. But because of the change coming about architects should not attempt to break altogether with the past; they must give a sense of continuity If they did not, the builder would do so by such means as imitation Tudor construction. The great point was to establish human values over machine values; in the Western world we did not realise that there was a different life and philosophy outside. The Western world was based upon the man who reasoned and sought perfection; and this fact had produced the machine which, if we were not careful, would wipe us out. But on the other side of the world there was an older philosophy, the Chinese, which said we were animals and that our highest perfection was to live with animals. We could not live without animal life, we had to be associated with nature; we had to balance the idea of the machine with the other idea. On the west coast of America people were blending the two ideas. Houses should be so disposed on the site as to obtain the balance of nature and the machine. If we had steel houses, in order to obtain balance we must use with the steel another material not dug from the ground. The fundamental thing for the architect was not working within the technique—there prefabrication and the machine must be accepted—but the maintenance of the human quality over the machine.

MR. SHEPPARD said that very few systems of prefabrication were likely to be for permanent construction. They were technically successful; whether they would be successful when ordinary methods of building had been speeded up scientifically he did not know, but, leaving that aside, several prefabrication methods were technically efficient. Another consideration was, how long would the houses last? Building societies would not be interested in houses with only a limited life. There must be State control not only of standards but also of cost and rental of houses; and this did not apply to structure alone but to equipment. Illustrations of plumbing, etc., appearing in the technical Press represented efficient solutions of problems, but nobody knew how these would work out from the local authority point of view; because local authorities kept down fittings so as to reduce cost of maintenance. The best type of tenant on a housing estate tried to improve the house he had got, and one saw all sorts of items or equipment added to those with which the house had started. That must be possible with prefabrication. The tenant must be provided with facilities for making his own contribution so that he could live in a standard house in the way he wished—there was quite as much flexibility in the prefabricated house as in one of normal construction.

The only way we should get a reasonable social unit was by grouping the houses for people of various incomes around a community centre and providing the services necessary. This was ordinary town planning, but became more necessary with prefabricated houses because it helped the idea of permanence. A third consideration was that the standardisation of components was important, and anybody dealing with standardisation, whether for normal building or prefabricated, had to take this question seriously. We could not produce equipment on a mass production basis unless there was interchange between various components. At present we had scores of firms each producing its own type of article to its own dimensions, and we must try to impose a standard of design not only in appearance but in dimensions and performance of equipment to go into houses generally. An electric or gas cooker must do equally well for the normal type of house and the prefabricated type. But because one could effect in one material a component of a certain size, it did not follow one would want that component of the same size when it was in another material: what was economical dimension in one material was unlikely to be economical in another. He had seen plans for standardised houses based on a common dimensional unit running all the way through. The common dimensional unit was a great simplification, and we should arrive at it, but it was not the point to start from. "Successful prefabrication depends," declared the speaker, "on the construction engineer rather than the architect because it is the construction engineer who can say whether the design will be practicable in the shops; the ideal is a combination of construction engineer, structural engineer and architect working together."

Difference in Techniques.

Prefabricated building technique was quite different from that of normal building. With normal building the architect had to specify materials and finishes, and give actual design and appearance so as to enable the craftsman to get on with the job. But with prefabrication there were no craftsmen. The architect must abandon the idea that he would get the beauty of appearance which is associated with craft; to have extensive production crafts must be eliminated from the building industry. Before the war contractors were working on a system where one team of workmen built the foundation of a house and then moved on. A second team built the bricks up to floor level, a third laid the floor, a fourth built the walls up to the first floor, and so on, all teams working to certain standards of dimensions on a piece-work basis. Good results were obtained in this way, and he (Mr. Sheppard) thought we should get that system of erection with prefabrication. It would be a case of the skilled team rather than the skilled craftsman working as such. Prefabricated houses must be warm, dry, moderately sound proof and otherwise up to standard. In the inter-war period there had been no standards: sometimes the prefabricated houses had been successful and sometimes not. The Government must lay down certain minima of performance and see that these were adhered to so that prefabrication did not become merely a means whereby a number of individuals got rich at the community's expense.

MR. ANTHONY POTT defined prefabrication as relying on a high degree of fabrication methods, and at least partial shop assembly, and spoke on the problem of evolving standards by which the efficiency of any such new method of construction could be assessed. Without such new standards the efficiency of new methods could only be assessed by comparison with the performance of traditional methods, and these produced more than adequate results in some respects and less than adequate in others. The designer of any new method of construction would be unduly cramped in his attempt to produce the best solution from all points of view unless the basic requirements had been formulated. Given a statement of those technical requirements the designer was free to make the best use of all the available materials, and to aim at improvements in performance over those of traditional forms wherever these were inadequate.

In a report published in 1934 it was stated that in the main building bye-laws had been drawn up in terms of the building practice current at the time, with a view to their being understood by men with no more than a traditional knowledge of building. Construction was specified not according to minimum requirements of strength but by the materials to be used, and as one result the introduction of systems unknown at the time the rules were provided was greatly hampered. Another difficulty was that in most cases building codes were based on methods known at the time the code was written. At that time the provisions had been considered fair and adequate, but with the development of new types of material these requirements worked a hardship. Building codes should be written in terms of requirements consisting of basic principles only in terms of accomplishment rather than terms of specification. In forming any judgment on new methods the new was compared with the old, and because it was difficult or even impossible to define all aspects of the performance of either new methods or old, the tendency was to compare their forms. Familiarity, conservatism and experience combined to make the verdict unfavourable and even unfair to the new. If the architect was to take the part which he ought to take in the development of a new building technique he should have a clear idea of the basic technical requirements of the buildings with which he was concerned. The preliminary Report of the Inter-Departmental Committee on House Construction (the Burt Committee) had just been published. The first section of that Report was concerned with a consideration of the basic technical considerations of house construction, and made a pioneer effort to formulate standards for house construction in terms of accomplishment rather than in terms of specification. The reason the Committee gave for attempting this difficult job was that they felt their work would be useful as a standard by which to assess new proposals, a guide to designers working on new proposals, and a means of bringing to the notice of all concerned with house building some of the results of research during the inter-war period. The Committee put forward these proposals as tentative standards only, standards which would have to be justified by experience in practice. In another connection the Report stressed the necessity for full co-operation between the professions in the post-war period. It was to be hoped the various proposals in the Report would receive close and critical study from architects who could make valuable contributions from their knowledge and judgment. To quote from an American monograph on housing: "The ingredients of good building code requirements are facts established by research, tests and observation, and judgment as embodied in a consensus of men possessing adequate training, experience and discrimination." If those in the building industry possessing these qualifications would supply the ingredients mentioned, building technique would be guided in the right direction. He (Mr. Pott) thought the Burt Committee would welcome constructive comment. Questions that might be usefully asked were (1) Whether there were other qualities besides those chosen by the Committee for the purposes for which they had been primarily conceived for which standards should be formulated? (2) Was it possible to postulate standards for such qualities as resistance to moisture penetration? (3) Where numerical values were stated in the Report were these

fixed at a reasonable level? In connection with this last point the Report said it might be thought some of the standards had been set rather high, but where new methods were applied it would not be difficult nor necessarily more costly to attain these high standards, provided good use was made of the variety of materials likely to be available to promoters of new constructional forms. In the long run new methods could only succeed if they produced good building. In conditions of emergency such new methods might have a temporary success because of cheapness or speedy erection, but unless they were good buildings they would fail as a long-term proposition.

Question Time.

A question was asked: Apart from plastics, what was meant by "new" materials?—MR. POTT replied that what we referred to as new materials were to a very large extent new developments of what had been known before. He did not think plastics had any part to play in the future except that, as in the past, they would be applied for various small fittings.

MR. WILLIAMS postulated that post-war building would fall into three categories, the same as had existed in the inter-war period, viz.: (1) Temporary, (2) semi-permanent or sub-standard, and (3) permanent. Until now it had been rather assumed that prefabrication would fall into the first two categories. He gathered it was the aim of prefabricators to pursue a policy of striving towards permanence, but pressure brought to bear in the interest of speed and cheapness would make it difficult to maintain a high standard. One system of prefabrication would compete with another in the respect of speed and cheapness and there would be a tendency to lose sight of other qualities. He was rather worried about layout. There was a tendency to bring architects into the post-war world on a rather different basis from that expected by the architects themselves. The production engineer would have a good deal to say about housing production, and the architect might find himself employed merely as a layout designer or landscape architect.

MR. WINTON LEWIS said building was much quicker in the United States than here because people there were more inclined to use factory methods.

MR. G. GREY WORNUM said that in the last war ten thousand steel houses had been put up because of the shortage of bricklayers, but when bricklayers were forthcoming the production of steel houses ceased. In America in 1926 and for a few years after steel houses were erected to help the steel industry. We looked on prefabrication as a stop-gap but should look at it as the development of a new kind of building technique. We should not repeat the mistake of our forefathers, that of leaving out-of-date buildings to our successors: 25 years was as far as we should consider going because we did not know what would be the requirements of future generations.

MR. H. V. LOBB said architects should do more work in collaboration with planning engineers. They should find out as much as possible about the material in which they were to work. Going through the factory, the architect could sometimes suggest materials that the engineer had not thought of. Various committees had been working on the standardisation of windows and other things, and in the interest of prefabrication that information should be made available to architects as early as possible and be as much discussed as possible.

Another speaker said there was a fundamental difference between prefabricating half a million houses identical in all respects and prefabricating certain parts A, B, C and D, with which you could still plan according to various requirements. In the latter case freedom of choice was allowed for different items, and alterations could be made.

The CHAIRMAN said architects had to accept prefabrication up to a point, but if the house was to be produced like a motor-car with all the spare parts to be fitted in as needed where would the architect come in? He thought all believed in the standardisation of parts, in the use of the machine so far as it could be used and the correlation of dimensions so that we had units that would fit in one with another; but were architects as a profession going beyond that? It seemed as if they might have to make a decision that would look selfish because of the interest of the profession, but on the other hand he was not convinced that humanity would be satisfied with the products of a machine age.

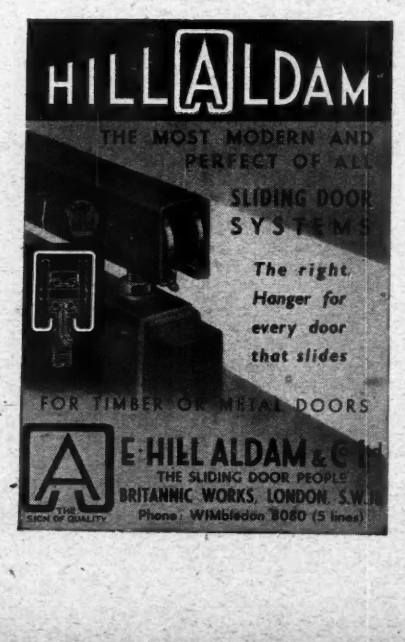
ARCHITECTS REGISTRATION COUNCIL

TWELFTH ANNUAL MEETING.

THE twelfth annual meeting of the Architects Registration Council of the United Kingdom was held on March 24 at 66, Portland-place, W.1, with the Chairman (Mr. Sydney Tatchell, F.R.I.B.A.) in the chair.

The Admission Committee's Report showed that out of 5,209 applications received under the 1938 Act and Regulation 26, only 695 remained to be dealt with, of which 433 applicants had not replied to the last registered communication and could not therefore be dealt with. The cases of 134 applicants were in abeyance, they being overseas. Among the applications rejected since the last meeting were those of Sir Alexander Gibb and Sir Leopold Savile, both described as "engineer, practice as an architect not proved."

The Board of Architectural Education's report contained the recommendations (1) that Mr. Everard Haynes should be appointed Secretary to the Board of Architectural Education as from January 1 last; and (2) that Mr. Romilly B. Craze continue to act in collaboration with Mr. Haynes until March 24, 1944. Recommendation (1) was carried, after an amendment by Major Athoe that "as in the opinion of the Council it is undesirable for an official of a constituent body to hold the dual appointment of Secretary to his own body's Board and to the Board of the Council, the recommendation should be referred back for further consideration and report" was declared lost by 13 votes to 20. Part (2) of the resolution was carried.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The Board reported that they had continued their investigation of the matter of practical experience as a qualification for admission to the Register. "The Board are of the opinion," the Report states, "that the action proposed by the schools in advising students not to apply for registration until they have had at least 12 months' practical experience in an architect's office or on building work is as much as can be attained in present conditions. The Board have accordingly asked the schools to give full and formal advice to this effect to all students entering and leaving the schools."

At their February, 1943, meeting the Council referred a letter from the Incorporated Association of Architects and Surveyors on the subject of examinations to the Board; in this the Association asked the Council to direct the Board to co-operate with the Association by approving the conditions of an examination to be held by the latter body. "The duty of the Board under the Act," the Report continues, "is to recommend the recognition of examinations. The Board understand that the I.A.A.S. are unable to submit completed examinations for recognition by the Council on the recommendation of the Board. The Board have received formal legal advice that they have no power to recommend the Council to recognise an examination which has not been held."

Considerable discussion ensued on this subject, and a statement by the Acting Chairman of the Board that a deputation from the Association to the General Purposes Committee would be received was noted.

ADMISSION OF THE PRESS.—A resolution that the Press be admitted to the meetings of the Council, subject to the Council reserving the right to exclude the Press when any particular matter is under discussion, was carried.

Arising out of the Report of the Professional Purposes Committee, the names of A. W. Metcalf and A. E. Nightingale were removed from the Register.

An architect who is a director of a building company, and who at the same time has been in private practice as an architect, was reprimanded as being guilty of unprofessional conduct contrary to Rules (2) (e) and (4) (c) of the Code of Professional Conduct for Architects. Contravention of this provision was admitted by the architect, who stated before the Discipline Committee that he was prepared to resign, though he had not in fact resigned.

The decision is important as forming a precedent indicating that an architect must not be a director of a building company, even though the company has been formed to develop properties in which the architect himself holds a substantial interest.

The 48th Ordinary Meeting.

This meeting was held immediately after the annual meeting. Mr. Tatchell and Mr. Darcy Braddell were unanimously elected Chairman and Vice-Chairman of the Council for the ensuing year. The composition of the new Council was announced and the new committees agreed to.

An amendment by Major Athoe, that the composition of the Board of Architectural Education should be made up of three representatives of each of the five constituent bodies, leaving nine to be freely chosen by the Council (the present proportions are two representatives each and 14 freely chosen) was defeated by eight votes to ten.

R.I.B.A.

COUNCIL MINUTES.

FOLLOWING are some notes from the minutes of the Council of the R.I.B.A., March 21 :—

Joint Consultative Committee of Architects and Builders.—The Council have approved a proposal to appoint a Joint Consultative Committee of Architects and Builders consisting of seven members each of the R.I.B.A. and the N.F.B.T.E.

The Late Sir Edwin Lutyens.—The Council have gratefully accepted from Lady Emily Lutyens and Wing-Commander Robert Lutyens the gift of Sir William Reid Dick's bust of the late Sir Edwin Lutyens which was commissioned for Viceroy House, New Delhi.

Professor A. E. Richardson, R.A. (F).—The cordial congratulations of the Council have been extended to Professor A. E. Richardson upon his recent election as a Royal Academician.

Mr. Frank C. Mears, R.S.A., F.R.S.E. (F.).—The hearty congratulations of the Council have also been conveyed to Mr. Frank C. Mears upon his election as President of the Royal Scottish Academy.

Gift of Books to the R.I.B.A. Library.—The thanks of the Council have been conveyed to Mr. F. Loughborough Pearson (F.), who has presented to the Library a collection of books, mostly previously belonging to the late Mr. John Loughborough Pearson, R.A., which comprises one of the largest gifts received for many years.

War Damage Repairs: Payment of Cost of Works Payments by Instalments.—The Council decided to support the following proposals recently made by the Chartered Surveyors' Institution to the War Damage Commission.

(1) That the importance of making interim advances upon cost of works payments as the work proceeds, with a view especially to facilitating the financing of larger operations, should be recognised, and that the extent to which, and the conditions upon which, such interim advances would be made should be specifically announced.

(2) That the Commission should be prepared to authorise such advances up to 75 per cent. in cases where the estimated total cost is £2,000 or less, and up to 90 per cent. where the said cost exceeds £2,000, the percentage in each case being based on the value, as proved to the satisfaction of the Commission, of the works executed up to the date of application.

(3) That, having regard to the period normally prescribed in building contracts for the honouring of certificates for payments on account, the Commission should be prepared to accept the signed certificate of a qualified architect or surveyor as sufficient proof of value.

Proposed Statutory Registration of Builders.—A report approved by the Council of the National Federation of Building Trades Employers recommending the promotion of a statutory scheme for the permissive Registration of Builders was submitted, and it was agreed to comply with a request that representatives of the Institute should be nominated to serve on a Committee for the purpose of giving advice and assistance in this matter.

Architectural Appreciation.—The Council approved a recommendation of the Committee for the Teaching of Architectural Appreciation in Schools, made through the Officers of the Board of Architectural Education, that the President of the Board of Education should be asked to receive a deputation to urge that consideration should be given to the need for evoking architectural appreciation in teachers as a first step towards the development of such appreciation in school children.

Demobilisation.—Authority was given to the Demobilisation Committee to proceed with a scheme for the establishment of a Central Bureau designed to assist architects and architectural assistants to find employment on being demobilised from the Forces or released from other forms of national service, and draft letters, Press notices, and questionnaires prepared in connection with the scheme were approved.

Resignations.—The following resignations were accepted with regret : Archibald Gilchrist Paton (A.), Arnett Hibbert (L.), Alfred William Tippetts (L.), William Oswald Wright (L.).

Transferred to the Retired Members' Class.—The following members were transferred to the Retired Members' Class under By-law 15 : As Retired Fellow—Robert John Angel ; as Retired Licentiate—Robert Allen Fordham.

IN PARLIAMENT

Reconstruction Bill.

MR. MANDER asked the Minister of Town and Country Planning whether the Government's announcement on the subject of their conclusions with regard to the Barlow, Scott, and Uthwatt Reports, to be made after Easter, would take the form of a White Paper, Bill, Parliamentary Statement, or in what manner it would be made.

MR. W. S. MORRISON said that a Bill would be introduced dealing with reconstruction areas, as promised in the King's Speech. The Government's proposals on other matters would be set out in a White Paper. Their views on the recommendations of the Scott Committee were set out in a Statement published on November 30 last. The form in which they would announce their policy on matters dealt with by the Barlow Report had not yet been decided.

In reply to MR. BOOTHBY, MR. T. JOHNSTON, Secretary of State for Scotland, said that proposals for Scotland would also be presented to Parliament as soon as possible after Easter.

Prefabricated Houses.

SIR RICHARD ACLAND asked the Parliamentary Secretary to the Ministry of Works whether he would name the private firms which the Government would harness to the work of making prefabricated houses; and whether he would publish a statement showing what would be the financial arrangements between these firms and the Government.

MR. HICKS said that as soon as the prototype was finally approved the Government would enter into firm contracts with suitable firms on normal lines so as to secure the fullest use of the productive capacity available.

MR. J. HOLLINS asked whether the Building Research Station had reported on the prefabricated steel structure for houses.

MR. HICKS said that he assumed that the hon. Member had in mind the temporary house to which the Prime Minister recently referred. The Building Research Station had been associated with the development from the outset, step by step. There had thus been no formal report. The prototype would be completed at the end of April.

Local Authorities' Guarantees.

MR. CRAVEN-ELLIS asked the Minister of Health if he would arrange that the guarantee required from the Government and local authorities under the Housing Act, 1933, be given immediately upon the approval of the plans and the acceptance of the housing scheme instead of, as at present, when the house was completed.

MR. WILLINK said all acceptable proposals for the guarantee were already approved before building was commenced; but the guarantee did not and could not come into operation until the advance to which it applied was made by the building society. Where a society was prepared to make an advance before the completion of building he was prepared to consider a proposal that a guarantee should be given at the same stage.

Periodic Inspections.

MR. CRAVEN-ELLIS asked the Minister of Health if he would give instructions to local authorities that no newly built house, flat or other domestic dwelling should be occupied where the material used and the workmanship had not been periodically inspected during construction, a thorough inspection made when finished, and, if the dwelling complied with the approved standards, a habitation certificate had been issued.

MR. WILLINK said that he had at present no power to issue instructions of this kind. Whether or not such power would provide the best means of controlling the standards of private enterprise building was one of the questions which was being examined by his Central Housing Advisory Committee.

Demolitions.

MR. CRAVEN-ELLIS asked the Minister of Health whether he was aware that there were in the United Kingdom 4,607,679 houses which were 80 to 254 years old in 1941, the great majority of which had passed their economic life and, therefore, were due for demolition; and would the Government's post-war policy for better housing be sufficiently comprehensive to cover organised demolition and replacement of these houses.

MR. WILLINK said he was aware that there was a large number of very old houses in this country. The programme for the building of three to four million houses in the ten to twelve years after the war involved the replacement of slum dwellings and of dwellings in a poor condition or grossly deficient in modern amenities.

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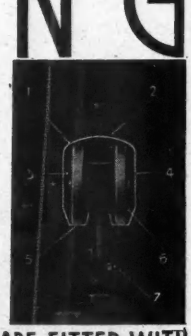

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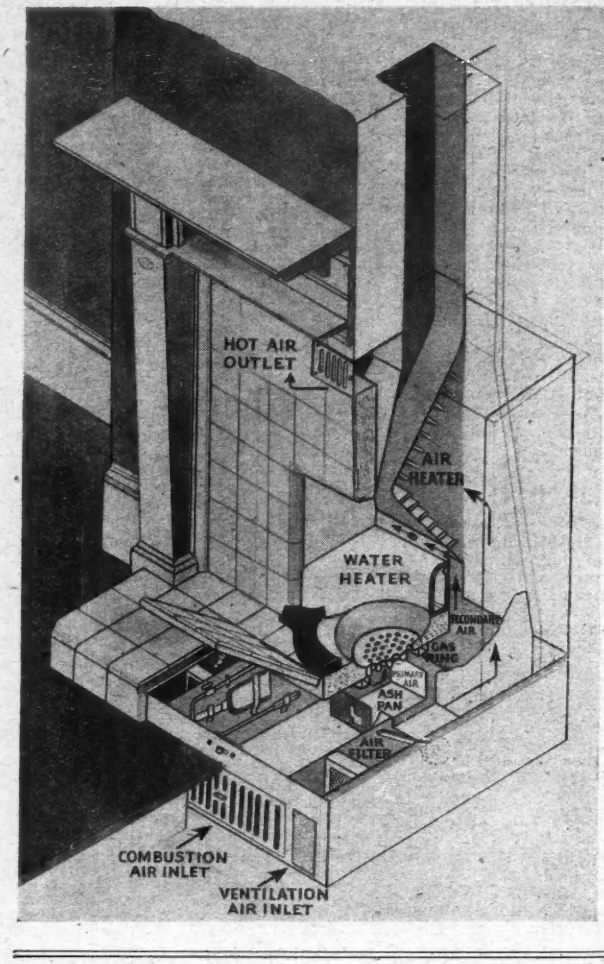


A NEW DOMESTIC GRATE.

A good solution of the problem of room-heating by an open fire is an open grate which does not take air for combustion from the room, but which, on the contrary, will provide a supply of warmed external air to the room for ventilation. The Benllech Hearth, illustrated on this page, is claimed to be such a solution. In addition, a hot water service is provided and the warmed external air is filtered before it enters the room. The appliance incorporates a mild-steel or cast-iron structure below the hearth tiles which is carried round the sides and rear of the hearth. The base, or air inlet, is sunk below the floorboards and has three separate chambers, two of which are fitted with a removable air filter, of the shredded glass or sponge-rubber type, for the ventilating air. The second combustion air chamber has a removable ashpan and space for storing the fire tools, with a hinged and balanced tile tray in the hearth proper to give easy access to all the chambers.

The centre chamber, in addition to supplying the primary air below the fire grid, supplies secondary air through a duct with openings at a fixed height above the fuel bed. The chambers for ventilating air connect through ducts to the sides and back of the grate, where the air heater is located. Thence the hot air passes to a space round the base of the chimney and is discharged into the room through the tiled face of the fireplace. The heater is calculated to produce enough heat to cause a flow of hot air to change the total air in the room three times per hour. This is achieved by increasing the heating area of the rear and side plates of the fire by welding webs on to these plates to give the necessary heating surface.

The fire base is designed with a special cast-iron grid of round to square openings, to allow the ash to drop through easily and to give sufficient air to burn coke or smokeless coal; a gas ignition or reviving ring is fitted below, with the gas jet ½ in. clear of the openings The secondary-air inlets are designed to pass the necessary extra air required for complete combustion at the correct position for burning the free carbon and partially cooling the rear of the fire to preserve the life of the metal. A cast-iron water heater can replace the upper portion of the firebrick lining, in which position it presents a large heating surface to the lower part of the firebed; it is constructed to the shape of the fire and has a removable plate in the back for cleaning. The connecting pipes are situated in the ventilating-air chamber, where, with the lower tiles made removable, the joints are easily accessible, allowing the heater to be disconnected and removed for repairs or cleaning. At the rear and sides of the heater sheets of asbestos lagging are fitted for heat insulation.

The grate (which is not yet on the market) has been designed by Mr. John S. Auckland Young, A.R.I.B.A., who is now in the Forces.

CAST CONCRETE PRODUCTS

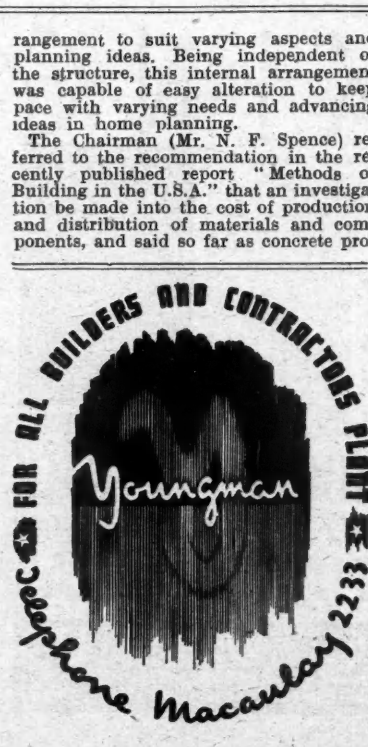
FEDERATION'S ANNUAL MEETING.

At the annual general meeting of the British Cast Concrete Federation (which is an amalgamation of the Cast Concrete Products Association, the National Association of Cast Concrete Products Manufacturers, and the British Concrete Federation) held in London, on March 16, it was reported that the Federation had supplemented its report on post-war building by a memorandum to the Walls, Floors and Roofs Committee. Further, whilst the major contribution of the industry would unquestionably be in connection with *permanent* building (including cast stone, floor and roof beams, walling blocks, partition slabs, roofing and floor tiles, dressings, and a variety of other building units, which few realised were cast stone or cast concrete—and not forgetting ancillary products, such as concrete pipes, kerbs, flags, inspection chambers, lighting columns, etc.) the Council considered the Federation ought also, since it was in a position to do so, to contribute towards the solution of the immediate post-war problem, by the provision of "semi-permanent" housing. Whilst the final scheme was not yet ready for release, progress had been made. The Chairman of the Technical Committee then commented upon the blue prints which were displayed. The drawings were of bungalow type, the main construction of which was precast concrete, dry built. A notable feature was that the *in situ* structure was quite independent of the interior arrangement, so providing for a wide variety of arrangement to suit varying aspects and planning ideas. Being independent of the structure, this internal arrangement was capable of easy alteration to keep pace with varying needs and advancing ideas in home planning.

The Chairman (Mr. N. F. Spence) referred to the recommendation in the recently published report "Methods of Building in the U.S.A." that an investigation be made into the cost of production and distribution of materials and components, and said so far as concrete products were concerned, an investigation had already been carried out by the Federation's auditors at the instigation of the M.O.W. Whilst he could not make a complete statement, he could tell them that the cross-sectional investigation had confirmed what the Federation claimed, viz. :—

(1) That the industry had not exploited the peak demand which had been experienced for certain products.
(2) That such increase in prices as had occurred was fully justified by the increased cost of cement, aggregate, steel, and wages.
(3) That an examination of the figures members had furnished in confidence to the auditors established that profit rates were low.

It could, therefore, be said with confidence that cast stone and cast concrete products of all descriptions would be available for the post-war housing programme at reasonable and competitive prices.



Books Received.

Architecture for Children. By Jane and Maxwell Fry. (London : George Allen & Unwin, Ltd.) Price 7s. 6d. net.

Industrial Publicity. By C. K. Shaw. (London : C. & J. Temple, Ltd.) Price £5 5s. net.

London's Stake in Overseas Trade. (London Liberal Party, 8, Gayfere-street, London, S.W.1.) Price 1s.

Feeding the Young Worker. (Empire Tea Bureau, 89, Kingsway, W.C.2.) Price 6d.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 2nd APRIL, 1943

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.
Aberavon	2/0	1/7	Cleveleys	2/0	1/7	Isle of Thanet	1/10	1/5½	Saxmundham	1/8½	1/4½
Aberdare	2/0	1/7	Clitheroe	1/11	1/6½	Isle of Wight	1/9½	1/5	Scarborough	1/11½	1/6½
Abergavenny	1/10½	1/5½	Cobham (Surrey)	1/11½	1/6½	Keighley	2/0	1/7	Scunthorpe	2/0	1/7
Abingdon	2/0	1/7	Colchester	1/11½	1/6½	Kenilworth	2/0	1/7	Selby	2/0	1/7
Accrington	1/8½	1/4½	Colwyn Bay	1/11	1/6½	Kettering M.B.	2/0	1/7	Sevenoaks	1/10½	1/5½
Aldeburgh	1/10½	1/5½	Coventry C.B.	2/0	1/7	Kidderminster M.B.	1/11½	1/6½	Sheerness	1/10	1/5½
Aldershot	2/0	1/7	Cranbrook	1/10	1/5½	King's Lynn	1/10	1/5½	Sheffield	2/0	1/7
Alfreton U.D.	1/11½	1/6½	Cranleigh	1/10	1/5½	Kirkham	2/0	1/7	Shipley	2/0	1/7
Alnwick	2/0	1/7	Crawley	1/10	1/5½	Knowle	1/1½	1/6½	Shoeburyness	1/11½	1/6½
Altrincham	1/11½	1/6½	Crewe	1/11½	1/6½	Lancaster	2/0	1/7	Shoreham	1/11	1/6½
Amble	1/10½	1/5½	Cromer	1/9	1/4½	Leamington M.B.	2/0	1/7	Shrewsbury M.B.	1/11½	1/6½
Amersham	2/0	1/7	Crowborough	1/10	1/5½	Leatherhead	1/11	1/6½	Sittingbourne	1/10	1/5½
Ammanford	1/10	1/5½	Cuckfield	1/10	1/5½	Leeds	2/0	1/7	Skegness U.D.	1/11	1/6½
Andover	1/10	1/5½	Darlington	2/0	1/7	Leicester C.B.	2/0	1/7	Sleaford U.D.	1/10½	1/5½
Ardingly	1/10	1/5½	Darwen	2/0	1/7	Letchworth	1/11	1/6½	Slough	1/11	1/6½
Arundel	1/10	1/5½	Daventry M.B.	1/10½	1/5½	Lewes	1/10	1/5½	Smethwick	†2/0	†1/7
Ascot			Deal	1/10	1/5½	Lichfield M.B.	1/11	1/6½	Southampton	1/11½	1/6½
Ashby-de-la-Zouch U.D.	2/0	1/7	Denbigh Town	1/11	1/6½	Lincoln C.B.	2/0	1/7	Southend-on-Sea	1/11½	1/6½
Ashford (Kent)	1/10	1/5½	Derby C.B.	2/0	1/7	Littlehampton	1/10	1/5½	Southport	2/0	1/7
Ashford (Middlesex)	2/0	1/7	Devizes	1/9	1/4½	Liverpool	‡§2/1	¶	South Shields	2/0	1/7
Ashington	1/11½	1/6½	Dewsbury	2/0	1/7	Llandudno	1/11	1/6½	Spalding	1/10	1/5½
Ashtead	2/0	1/7	Didcot	1/10	1/5½	Llanelly	2/0	1/7	Stafford M.B.	1/11½	1/6½
Ashton-under-Lyne	2/0	1/7	Diss	1/8½	1/4½	London—			Staines	1/11	1/6½
Aylesbury	1/10	1/5½	Doncaster	2/0	1/7	12m. radius	2/1½	1/8	Stamford M.B.	1/11	1/6½
Aylsham	1/9	1/4½	Dorchester	1/9½	1/5	12-15m. radius	2/1	1/7½	Stevenage	1/11	1/6½
Bagshot	1/10	1/5½	Dorking	1/10½	1/5½	Long Eaton U.D.	2/0	1/7	Stockport	2/0	1/7
Banbury	1/10	1/5½	Dover	1/10	1/5½	Longton	2/0	1/7	Stockton-on-Tees	2/0	1/7
Barnsley	2/0	1/7	Dovercourt	1/10	1/5½	Loughborough M.B.	2/0	1/7	Stoke-on-Trent C.B.	2/0	1/7
Barnstaple	1/10	1/5½	Driffield	1/10½	1/5½	Louth M.B.	1/10½	1/5½	Stourbridge M.B.	2/0	1/7
Barrow-in-Furness	2/0	1/7	Droitwich M.B.	1/11½	1/6½	Lowestoft	1/10	1/5½	Stourport U.D.	1/11½	1/6½
Barry	2/0	1/7	Dudley M.B.	2/0	1/7	Luton	1/11½	1/6½	Stowmarket	1/9	1/4½
Basingstoke	1/10	1/5½	Dunstable	1/10½	1/5½	Macclesfield	1/11½	1/6½	Stratford-on-Avon M.B.	1/11	1/6½
Bath	1/11½	1/6½	Durham City	2/0	1/7	Maidenhead	1/11	1/6½	Stroud	1/11	1/6½
Batley	2/0	1/7	Eastbourne	1/11	1/6½	Maidstone	1/10½	1/5½	Sunderland	2/0	1/7
Beaconsfield	1/10½	1/5½	E. Glam. (Mon. Val.)	2/0	1/7	Malvern U.D.	1/10½	1/5½	Sutton Coldfield M.B.	2/0	1/7
Beccles	1/8½	1/4½	East Grinstead	1/10	1/5½	Manchester	2/0	1/7	Swaffham	1/8½	1/4½
Bedford	1/11½	1/6½	Edenbridge	1/10	1/5½	Manningtree	1/9	1/4½	Swanage	1/10	1/5½
Berkhamsted	1/10	1/5½	Ely	1/9	1/4½	Mansfield M.B.	2/0	1/7	Swansea	2/0	1/7
Berwick	1/11½	1/6½	Epping	2/0	1/7	March	1/9	1/4½	Swindon	1/10½	1/5½
Beverley	2/0	1/7	Exeter	1/11½	1/6½	Margate	1/10	1/5½	Tamworth M.B.	1/11½	1/6½
Bexhill	1/10½	1/5½	Exmouth	1/10½	1/5½	Market Harborough	1/11	1/6½	Taunton	1/10½	1/5½
Bideford	1/10	1/5½	Fakenham	1/9	1/4½	Matlock U.D.	1/10½	1/5½	Tenterden	1/10	1/5½
Biggleswade	1/10	1/5½	Falmouth	1/10½	1/5½	Melton Constable	1/8½	1/4½	Thames Haven	2/0	1/7
Billericay	1/9½	1/5	Fareham	1/11	1/6½	Melton Mowbray	1/11	1/6½	Thetford	1/9½	1/5
Birchington	1/10	1/5½	Faversham	1/10	1/5½	Merthyr	2/0	1/7	Thorpe Bay	1/11½	1/6½
Birkenhead	‡§2/1	¶	Felixstowe	1/11	1/6½	Middlesbrough	2/0	1/7	Todmorden	2/0	1/7
Birmingham C.B.	†2/0	†1/7	Filey	1/10½	1/5½	Middleton	2/0	1/7	Tonbridge	1/10½	1/5½
Bishop Auckland	2/0	1/7	Fleetwood	2/0	1/7	Middlewich	1/11½	1/6½	Torquay	1/11½	1/6½
Bishop's Stortford	1/11	1/6½	Flint	2/0	1/7	Milford Haven	1/10½	1/5½	Totnes	1/10	1/5½
Blackburn	2/0	1/7	Folkestone	1/10	1/5½	Morecambe	2/0	1/7	Trowbridge	1/9	1/4½
Blackpool	2/0	1/7	Frinton-on-Sea	1/10	1/5½	Morley	2/0	1/7	Truro	1/9½	1/5
Blyth	2/0	1/7	Frome	1/9	1/4½	Mundesley	1/9	1/4½	Tunbridge Wells	1/10½	1/5½
Bognor Regis	1/10	1/5½	Gainsborough U.D.	1/11	1/6½	Nantwich	1/11½	1/6½	Uppingham (Salop)	1/11½	1/6½
Bolton	2/0	1/7	Gateshead	2/0	1/7	Nelson	2/0	1/7	Uttoxeter U.D.	1/10½	1/5½
Bournemouth	1/11	1/6½	Gillingham (Kent)	1/11	1/6½	Newark-on-Trent	1/11½	1/6½	Wakefield	2/0	1/7
Bracknell	1/10	1/5½	Glossop	2/0	1/7	Newbury	1/10	1/5½	Walsall C.B.	2/0	1/7
Bradford	2/0	1/7	Gloucester	1/11½	1/6½	Newcastle-on-Tyne	2/0	1/7	Walsden	2/0	1/7
Bradford-on-Avon	1/9	1/4½	Godalming	1/10	1/5½	Newcastle-u.-Lyme	2/0	1/7	Walton-on-Naze	1/10	1/5½
Braintree	1/10	1/5½	Goole	2/0	1/7	New Forest	1/10	1/5½	Ware	1/11½	1/6½
Brentwood	1/11½	1/6½	Gosport	1/11½	1/6½	Newmarket	1/10	1/5½	Warminster	1/9	1/4½
Bridgwater	1/10½	1/5½	Grantham M.B.	1/11	1/6½	Newport, Mon.	2/0	1/7	Warrington	2/0	1/7
Bridlington	1/11½	1/6½	Gravesend	1/11½	1/6½	Newport Pagnell	1/10	1/5½	Warwick M.B.	2/0	1/7
Brighouse	2/0	1/7	Great Yarmouth	1/10	1/5½	Northampton C.B.	2/0	1/7	Wellington R.D.	1/11½	1/6½
Brighton	1/11	1/6½	Grimsby	2/0	1/7	Norwich	2/0	1/7	Welwyn	1/11	1/6½
Bristol	2/0	1/7	Guildford	1/10	1/5½	Nottingham	2/0	1/7	Welwyn Gar. City	2/0	1/7
Broadstairs	1/10	1/5½	Guilsborough	1/10½	1/5½	Nuneaton	2/0	1/7	Wells (Norfolk)	1/8½	1/4½
Bromsgrove U.D.	1/11½	1/6½	Halifax	2/0	1/7	Oakham U.D.	1/10½	1/5½	West Bromwich C.B.	2/0	1/7
Buckley	2/0	1/7	Hanley	2/0	1/7	Oldham	2/0	1/7	Westcliff-on-Sea	1/11½	1/6½
Bungay	1/8	1/4	Harpenden	1/11	1/6½	Ormskirk	2/0	1/7	Weston-super-Mare	1/11	1/6½
Burnham-on-Crouch	1/8½	1/4½	Harrogate	2/0	1/7	Oxford	1/11½	1/6½	Weybridge	1/11	1/6½
Burnley	2/0	1/7	Hartlepools	2/0	1/7	Oxted	1/10½	1/5½	Weymouth	1/10	1/5½
Bursiem	2/0	1/7	Harwich	1/10	1/5½	Paignton	1/11½	1/6½	Whitby	1/11	1/6½
Burton-on-Trent C.B.	2/0	1/7	Haslemere	1/10	1/5½	Peterborough (Borough)	1/11½	1/6½	Whitstable	1/10	1/5½
Bury	2/0	1/7	Hastings	1/10	1/5½	Plymouth	2/0	1/7	Widnes	2/0	1/7
Bury St. Edmunds	1/9½	1/5	Hatfield	1/11½	1/6½	Pontefract	2/0	1/7	Wigan	2/0	1/7
Buxton	1/11½	1/6½	Haywards Heath	1/10	1/5½	Pontypridd	2/0	1/7	Wigton	1/10½	1/5½
Byfleet	1/10½	1/5½	Hednesford	1/11½	1/6½	Port Talbot	2/0	1/7	Willington	2/0	1/7
Cambridge	2/0	1/7	Hemel Hempstead	1/11	1/6½	Portsmouth	1/11½	1/6½	Wilmslow	2/0	1/7
Canterbury	1/10	1/5½	Henley-on-Thames	1/10	1/5½	Preston	2/0	1/7	Winchester	1/10½	1/5½
Cardiff	2/0	1/7	Hereford	1/10	1/5½	Pulborough	1/10	1/5½	Windermere	1/10½	1/5½
Carlisle	2/0	1/7	Herne Bay	1/10	1/5½	Ramsgate	1/10	1/5½	Windsor	1/11	1/6½
Carnforth	2/0	1/7	Hertford	1/11½	1/6½	Reading	1/11½	1/6½	Wisbech	1/9½	1/5
Castleford	2/0	1/7	Heysham	2/0	1/7	Redditch U.D.	1/11½	1/6½	Witham	1/10	1/5½
Caterham	2/0	1/7	Hitchin	1/11	1/6½	Redhill	1/10½	1/5½	Woking	1/10½	1/5½
Chard	1/9	1/4½	Hoddesdon	1/11½	1/6½	Ripon	1/10½	1/5½	Wokingham	1/10	1/5½
Chatham	1/11	1/6½	Holt (Norfolk)	1/8½	1/4½	Rochdale	2/0	1/7	Wolverhampton C.B.	2/0	1/7
Chelmsford	1/11½	1/6½	Horley	1/10	1/5½	Rochester	1/11	1/6½	Woodbridge	1/9½	1/5
Cheltenham	1/11	1/6½	Horsham	1/10	1/5½	Rugby M.B.	2/0	1/7	Worcester C.B.	1/11½	1/6½
Chepstow	1/11½	1/6½	Horwich	2/0	1/7	St. Albans	1/11½	1/6½	Workington	1/10½	1/5½
Chertsey	1/11	1/6½	Huddersfield	2/0	1/7	St. Helens	2/0	1/7	Worksop	1/11½	1/6½
Chester	2/0	1/7	Hull	2/0	1/7	St. Neots	1/9½	1/5	Worthing	1/10	1/5½
Chesterfield M.B.	2/0	1/7	Hunstanton	1/9	1/4½	Saffron Walden	1/9	1/4½	Wrexham	1/11½	1/6½
Chichester	1/10	1/5½	Huntingdon	1/9½	1/5	Salisbury City	1/9½	1/5	Wroxham	1/9½	1/5
Chorley	2/0	1/7	Ilfracombe	1/10	1/5½	Salisbury Plain	1/11	1/6½	Wycombe	1/11	1/6½
Cirencester	1/9½	1/5	Ingatestone	1/10½	1/5½	Sawbridgeworth	1/10½	1/5½	Wymondham	1/9	1/4½
Clacton	1/10	1/5½	Ipswich	1/11½	1/6½				Yeovil	1/10½	1/5½
									York	2/0	1/7

† Plus 2d. per working day. ‡ Plasterers 2/1½. ¶ Tradesmen's Labourers, 1/7½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters, Joiners and Plumbers in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 307

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials at works at London stations, or site, in London area as stated. Prices for smaller quantities ex merchant's warehouse will of course be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery.

BRICKS, &c.

	£ s. d.
First Hard Stocks	4 16 0
Second Hard Stocks	4 9 0
Mild Stocks	3 16 0
Single Rough Stocks	3 10 0
Common Stocks	3 0 6

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job. *In addition*, there will be the Levy under the Bricks (Charges) Order, 1942, of 3s. per 1,000.

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross Station per 1,000 s. d.	To sites in W.C. District per 1,000 s. d.
Pressed	56 9	63 3
Keyed	58 9	65 3
Single Bullnose	76 9	83 3
Rustics	76 9	83 3
Whites	77 3	83 3

White Midhurst Best selected (delivered London site)	£ s. d. 5 10 0
Best blue Pressed Staffs. (London Stns.)	11 12 0
Do. Bullnose (London Stns.)	12 2 0
Blue Wire Cuts (London Stns.)	10 9 6

Best Stourbridge Fire Brick (London Stns.) :—

£ s. d.	£ s. d.
2½ in. 10 0 0	3 in. 12 0 0

GLAZED BRICKS (London Stns.). Add 12½% to Prices.

Best White Ivory and Salt Glazed Stretcher	30 0 0	D'ble Str'tch'rs D'ble Headers One side&two ends	38 10 0 35 10 0 39 10 0
Headers	29 10 0	Two sides&one end	40 10 0
Quoins, Bullnose and 4½in. Flats	36 10 0	Splays and Squints	38 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

ADD LEVY ON BRICKS, 3/– per 1,000 except Glazed Bricks.

PARTITION SLABS.

Delivered on site London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

	s. d.		s. d.
2" per yd. sup.	2 8	3" per yd. sup.	3 6
2½" " "	2 11	4" " "	3 10

CLINKER CONCRETE.

2" per yd. sup.	1 11	3" per yd. sup.	2 6
2½" " "	2 3	4" " "	3 6

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 8
Size 12 x 9 x 2½" " "	2 11
Size 12 x 9 x 3" " "	3 6
Size 12 x 9 x 4" " "	3 10

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 8	12" x 9" x 3"	3 6
12" x 9" x 2½"	2 11	12" x 9" x 4"	3 10

Per yard super d/d. Free on site, London.

Plus 2d. for smooth one side, and 4d. for smooth both sides.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	3 3½
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R. per ft. cube	4 7
Do. do. delivered on road waggons as above stations per ft. cub.	4 7
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10ft. and over P.ft.cb.	s. d. 13 2
Sawn two sides	26 11
Sawn three or four sides	31 11
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London. 6 in. sawn two sides landings to sizes (under 30 ft. super) per ft. super	5 6
6 in. rubbed two sides, ditto "	6 3
3 in. sawn two sides slabs (random sizes) "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) "	1 8½
1½ in. to 2 in. ditto "	1 4½
HARD YORK— Delivered at any Goods Station, London. Scrappled random blocks .. per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft. super	5 7½
6 in. rubbed two sides, ditto "	6 9
4 in. sawn two sides slabs (random sizes) "	3 5
3 in. ditto ditto "	2 8
2 in. self-faced random flags.. per yd. super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube : Plain, 7s. 6d. Moulded, 8s. 6d. Small section cills and copings, 11s.

SAND.

Thames Ballast	11s. 6d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	10s. 0d. " "	
Pit Sand	12s. 0d. " "	
Washed Sand	13s. 0d. " "	
¾ in. Shingle	10s. 6d. " "	
¾ in. Broken Brick	16s. 0d. " "	
Pan Breeze	10s. 0d. " "	

CEMENT.

	£ s. d.
Best British Portland Cement. Standard Specification, delivered London area.	
6 ton loads and upwards site .... per ton	2 11 0
1 to 6 tons site	2 14 0
Alongside Vauxhall in 80-ton lots	2 8 6
"Ferrocrete" Rapid Hardening Cement— 6 ton loads and upwards site	2 17 0
1 to 6 tons site	3 0 0
Alongside Vauxhall in 80-ton lots	2 14 6
"Aquacrete" Water Repellent, "Blue Circle" cement, 30s. per ton on ordinary "Blue Circle" prices.	
"Colorcrete" Nos.1 and 2. Coloured rapid Hardening Portland Cement in 6 ton lots	4 11 0
"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.	
"Snowcrete" White Portland Cement (in free paper bags)	11 5 0
Under one ton per cwt.	0 13 2
"417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 tons lots and upwards	3 11 0
Plus packages at current prices.	
Super Cement (Waterproof), bags extra.	4 1 0

NOTE.—Jute sacks charged at 35s. 6d. nett per ton (20 sacks) for quantities of or exceeding one ton. Less than one ton 1s. 9½d. nett each.

Credit 1s. 6d. nett each when returned in good condition within two weeks.

	£ s. d.		£ s. d.
Roman Cement	8 10 0	Keene'sCement,White	7 0 0
Parian Cement	7 0 0	" Pink	6 10 0

Cementone Colours for cement according to tints, per cwt. from £3 5s. 0d.

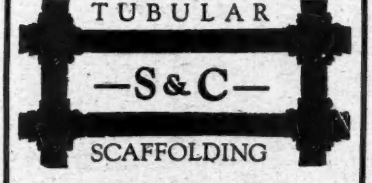
SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station.

Per 1,000 actual	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		

Having Secured the Contract— what about the Steel Scaffolding?

TUBULAR



SCAFFOLDING

For the lowest Prices apply to the Oldest Firm in the Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10

Telephone No. Ladbroke 1191 (6 lines)

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 2 6	Sirapite, Coarse	4 8 6
" White	4 10 0	" Finish	4 14 6
Pioneer	5 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue		Grey Stone Lime	3 1 0
Lias Lime	3 7 6	Chalk Lime	3 1 0
Granite Chippings	1 15 0	Hair per cwt.	3 15 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12s. 6d. 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£6 12 9
Ditto hand-made ditto	7 19 9
Ornamental ditto	8 7 0
Hip and valley tiles—Hand-made	16 4
(per dozen) —Machine-made	15 7

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality	s. d.		s. d.	Foot cube. £ s. d.
Dry English Wainscot Billets	16 0	to	0 18 0	
Dry Slavonian Billet Wainscot	17 0	to	1 0 0	
Dry Cuba Mahogany logs	21 0	to	1 4 0	
Square-edged Honduras Mahogany				0 16 6
Log Cut Honduras Mahogany				0 17 6
American Figured Oak				0 13 0
American Plain Oak				0 12 6
Jap, Figured Oak				0 13 0
Jap, Plain Oak				0 12 6
Teak				0 15 6
American Whitewood				0 12 6
African Whitewood				0 8 0
African Mahogany				0 11 0
Australian Walnut				0 19 0
Australian Silky Oak				0 12 6
Best Scotch glue			per cwt.	5 0 0
Liquid glue			per gallon	1 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE.

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes		
2 in. by 3 in. to 4 in. by 11 in.	47 0 0	58 0 0

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	71 0 0
	Per square. s. d.
1 in. plain edge flooring	56 3
1¼ in. ditto	70 6
1 in. tongued and grooved	56 3
1¼ in. ditto	70 6

MATCHING.

	per square. s. d.
¾ in.	40 0
¾ in.	45 3
1 in.	59 0

PLUMBERS' BRASS WORK.

Delivered in London.

M.O.H.

S.D. BIBCOCKS CRUTCH HEAD, FOR IRON

½ in.	¾ in.
33/–	51/– per doz.

TOILET BIB COCKS FOR IRON.

½ in.	¾ in.
60/–	72/– per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
33/–	48/–	86/–	209/–	281/–	456/– per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
45/–	77/6	123/–	240/–	372/–	624/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
5/6	6/8	11/–	24/–	36/–	56/– per doz.

HEAVY CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
72/–	115/–	144/–	288/–	384/– per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
14/–	18/6	25/9	45/3	64/9	71/6 per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/9	13/6	25/–	37/–	46/– per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½×6 lbs.	1½ × 6 lbs.	2 × 7 lbs.	3 × 7 lbs.
Lead P.	26/–	34/–	55/–	92/– per doz.
Lead S.	34/–	41/–	67/–	115/– per doz.

SOLDER.—Plumbers', 1/7. Tinmen's, 2/1. Blow pipe 2/6 per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(contd.)

See Note at top of preceding page.

METALS.

JOISTS, GIRDERS, &c., to LONDON STATION PER TON—

	£	s.	d.
R.S. Joists, cut and fitted	£24	0	0
Plain Compound Girders	26	10	0
Stanchions	29	0	0
In Roof Work	35	0	0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	23	5	0	½ in.	21	15	0
⅜ in.	22	15	0	½ in. to 2¾ in.	21	5	0
⅝ in.	22	5	0				

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½% gross. 10/17

	Tubes. ¼"/6" %	Tubulars, ¼"/6" %	19/24" %	and Flanges. ¼"/2" %	2½"/6" %
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv. lightweight	30	—	30	30	30
Galv. heavyweight	20	20	20	20	20

Tubes and tubulars sizes ¼"/⅜" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works, per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/5½	1/2½	4½d.
3½ in.	1/7	1/4	4½d.
4 in.	1/7	1/6	6½d.
4½ in.	1/8½	1/8½	7½d.
5 in.	2/0½	2/0	9d.

O.C. GUTTERS.

3 in.	1/10½	1/7½	5d.
3½ in.	2/1½	1/7½	6½d.
4 in.	2/1½	1/8½	7½d.
4½ in.	2/2½	1/11½	8½d.
5 in.	2/8½	2/3	10½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Stock angles.	Branches.
2 in.	2/2½	1/5½	2/2
2½ in.	2/3½	1/8½	2/7½
3 in.	2/8½	2/1½	3/2
3½ in.	3/2½	2/6½	3/7½
4 in.	3/8½	3/0½	4/5

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches
2 in.	3/9½	2/7½	3/2
2½ in.	4/5	2/10½	3/11½
3 in.	4/9	3/2	4/8½
3½ in.	4/10½	3/11½	5/5½
4 in.	5/3½	4/5	6/3½

L.C.C. COATED DRAIN PIPE.

	cwt.	gr.	lbs. in 9 fts.	per yard.	Bends.	Branches.
3 in.	0	3	14	6/0	7/3	†1/6
4 in.	1	1	17	8/7	8/2	14/5
5 in.	1	2	18	10/7	14/9	22/3
6 in.	2	0	1	12/9	17/0	29/8

Gaskin, 75/- per cwt.

	Per ton basis in London. £	s.	d.
IRON.—Staffordshire Crown, Merchant quality	18	7	6
IRON.—Staffordshire Marked Bars	19	7	6
Mild Steel Bars	19	15	0
Mild Steel Hoops	21	10	0
	Ex Merchant's Stock, per ton (two-ton lots).		
Soft Steel Sheets, C.R. and C.A.—			
20 gauge	24	17	6
24 gauge	25	2	6
26 gauge	25	17	6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20 gauge	27	0	0
24 gauge	27	10	0
26 gauge	28	15	0
Galvanised Flat Sheets, C.R. and C.A.—			
20 gauge	28	10	0
24 gauge	29	0	0
26 gauge	30	5	0
	Per ton		
	£	s.	d.
Cut Nails, 3 in. and up	28	10	0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 2s. 4d. to 2s. 7d. per foot super.

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil (5 galls.) .. per gallon	0	7	0
Boiled Linseed Oil (5 galls.) .... "	0	7	4
Genuine Ground English White Lead, per cwt.	3	11	9
Genuine White Lead Paint, 14-lb. tins free, per cwt.	4	16	6
Genuine Red Lead .. "	2	18	6
Linseed Oil Putty (Kegs extra) .. "	1	5	3
Size, XD quality .. fkn.	0	4	9

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards.

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from February 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B	B1
Craftsmen	2/0½	2/0	1/11½	1/11	1/10½	1/10
Labourers	1/7	1/6½	1/6½	1/6	1/5½	1/5½

Aberdeen	A	Dumfriesshire	A2	Inverness	*	Perthshire	A2
Ayrshire	A	Dundee	A	Inverurie	A1	Peterhead	A1
Banff	B	Dunoon	A	Kincardineshire	A2	Renfrewshire	A
Berwickshire	A2	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A2
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	A2
Doune	A	Forfarshire	A2	Moray and Nairn	B	Stewartry	A2
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A2	Stornoway	A2
Dumfries	A1	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

*This town has its own rates: Masons, 1/9½; Carpenters, 1/9½; Slaters, 1/9½; Plumbers, 1/10; Plasterers, 1/10½ but 1/11 is paid owing to the scarcity at present; Painters, 1/9½ and Labourers, 1/5.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 305

VARNISHES, &c.

		Per gallon. £	s.	d.
Oak Varnish	Outside	0	16	0
Fine do.	"	0	18	0
Fine Copal	"	1	0	0
Pale Copal	"	1	2	0
Pale Opal Carriage	"	1	6	0
Best do. do.	"	1	14	0
Floor Varnish	Inside	1	0	0
Fine Pale Paper	"	1	0	0
Fine Copal Cabinet	"	1	4	0
Fine Copal Flatting	"	1	2	0
Hard Drying Oak	"	1	0	0
Fine Hard Drying Oak	"	1	1	6
Fine Copal Varnish	"	1	2	6
Pale do.	"	1	14	0
Best do.	"	1	4	6
Best Japan Gold Size	"	1	14	6
Best Black Japan		0	12	0
Oak and Mahogany Stain (water)		0	14	0
Brunswick Black		0	9	6
Berlin Black		0	16	0
Knotting (patent)		0	17	0
French and Brush Polish		0	14	0
Liquid Dryers in Terebene		0	11	0

LEAD, &c.

(Delivered in London.)	Per ton. £	s.	d.
LEAD.—Sheet, English, 4 lb. and up	38	0	0
Pipe in coils	38	10	0
Soil pipe	42	10	0
Compo pipe	47	10	0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton } £18 0 0.

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THE SCOTTISH BUILDER

NEW BUILDINGS

DUNTOCHAR (Dunbartonshire).—Plans in hand for housing scheme, for which the architect is Joseph Weekes, 18, Park-circus, Kelvingrove, Glasgow.

GLASGOW.—Plans in the hands of Mayor & Coulson, Rogart-st., for scheme of demolition and erection of new building.—Plans prepared for drying kiln, for which the architect is James Austin Laird, 55, West Regent-st., Glasgow.

LANARK.—Plans prepared for reconstruction and extensions, the architect being John Baxter, Oakdene, Whiteleés-rd., Lanark.

LANARKSHIRE.—C.C. to erect houses at Leaburn from plans by William Watt, 35, Albert-st., Motherwell.

British Standards.

The British Standards Institution, 28, Victoria-st., S.W.1, issue the following:

Solid Drawn Steel Air Recessers. (2s. post free.)

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY CUT SIZES.

	Per ft. super. d.
18 oz.	3½
24 oz. Clear or "R" quality	5
26 oz.	6½
32 oz.	8½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼ in.	6½d.
Rough cast double rolled, ⅛ in.	7½d.
Rough cast double rolled, ¼ in.	7½d.
Figured rolled, and Cathedral, white	6½d.
Figured rolled and Cathedral, tinted	9½d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	10½d.

Rolled plate is the same price as rough cast double rolled.

	Per ft. s.	d.
Wire Rolled, ¼ in. thick	0	9½
Wire Cast, ¼ in. thick	0	9½
Georgian Wired Cast	0	10
"Calorex" Sheet, 21 oz.	2	6
" " 32 oz.	4	0
" Cast, ¼ in. thick	0	9½
" " ⅜ in. thick	1	0
" " ½ in. thick	1	2
Non Actinic Glass, ¼ in. thick	0	9½
" " " ⅜ in. thick	1	0
" " " ½ in. thick	1	2

"VITA" GLASS.

	Per ft. s.	d.
"Vita" Plate Glass, about ⅛ in. thick— To 7 ft. super	5	0
Over 7 ft. super	7	6
"Vita" Sheet Glass, about 18/20 oz.	2	0
Cathedral "Vita" Glass: ¼ in. thickness	2	0
⅜ in. "	3	0
½ in. Georgian Wired "Vita" Glass	3	6

GLASS BRICKS.

	s.	d.	
P.B. 1—8 in. × 4½ in. × 3½ in	2	9	each nett
P.B. 2—5½ in. × 5½ in. × 3½ in.	2	6	"
P.B. 3—7½ in. × 7½ in. × 3½ in.	3	6	"
P.B. 32—7½ in. × 7½ in. × 3½ in.	3	6	"
Radiused Corner Bricks to match up with—			
P.B. 2	4	6	each nett
P.B. 3	6	0	"
P.B. 32	6	0	"

IMPROVED LIME PLASTERING

FROM A CORRESPONDENT.

Lime plaster, in the inter-war period, was to a large extent replaced by hard wall plaster. This was due :—

(1) To the greater hardening speeds—and consequently finishing speeds—which could be achieved with hard wall plaster.

(2) To the laborious methods of slaking the quicklime and the period that was required for maturing the lime putty. If it was not matured, the resultant plaster was liable to blowing and pitting.

Consumer experience in practice with hard wall plaster showed, however, that its high sound reflectivity was a certain disadvantage both in the home and in the office. With a mechanically hydrated lime it was possible to retain the advantages of lime plastering—its absorptive nature, ease of application, superior covering power—without the risk of blowing and pitting in the finished plaster. The ascending spiral of progress thus led to an extended use of lime plaster. One disadvantage remained—the extended time interval between successive coats. Experimental work was, therefore, put in hand, and it was found that by judicious gauging of the lime putty with calcium sulphate plaster, the time interval could be reduced to limits comparable with hard wall plaster.

The technique of gauging lime putty with plaster of paris, or coarse boiler plaster, had, of course, been known for some time, but experience has shown that such plasters were often worked or trowelled over and beyond their setting period, thereby defeating the whole object of gauging. To overcome this defect, the new technique of accelerated lime plastering made use of a retarded hemihydrate plaster for gauging. In case technicalities should confuse, it should perhaps be explained that a retarded hemihydrate plaster is plaster of paris or coarse boiler plaster, the set of which has been adjusted, by means of a retarder, for reasonable working.

A further advantage of a retarded hemihydrate plaster is that it can be gauged with the lime putty in much higher proportions than are possible with plaster of paris or coarse boiled plaster. The result is a much stronger finished job.

A suitable specification for this improved lime plaster would be :—

Putty from Hydrated Lime.—Mix the hydrated lime with water to the consistency of a thick cream, and allow it to stand for 24 hours or at least overnight.

First and Second Coats.—One part putty from hydrated lime to 3 to 4 parts of clean, well-graded sand. Immediately before use, incorporate in the lime-sand mix a reputable brand of retarded hemihydrate plaster, in proportions up to half by volume of the lime putty.

Finishing Coats.—*Normal:* One part lime putty and one part clean, well-graded sand with retarded hemihydrate plaster added immediately prior to use, in the proportion of one-quarter to one-third by volume of lime putty. *Superior White:* Circle out the lime putty and sprinkle in retarded hemihydrate plaster up to one-third by volume of the lime putty. Add water and knock up hemihydrate plaster to the same consistency as the lime putty. Mix the two thoroughly together.

The application of gauged lime mixes, in accordance with this specification, follows normal trade practice.

In conclusion, just one word on decoration. All plaster, whether hard wall, lime or gauged lime, must be dry before permanent decoration be undertaken with safety.

THE M.O.W. STANDARD HUT

The equivalent of 12,000 standard huts, 18 ft. 6 in. span, 60 ft. long, has been erected giving a total floor area of over 13,000,000 sq. ft. In addition, the equivalent of 1,100 24 ft. span huts, 120 ft. long, has been erected with a floor area of over 3,000,000 sq. ft.

The standard hut has been erected for the following types of occupation :—

Camps and Hostels: Sleeping, living, recreation, ablution, canteens, chapels, mortuary.

Office Accommodation: T.O.B.s, and smaller offices.

Workshops: General service Huts, rehabilitation centres.

Schools: Kitchens, canteens, classrooms and nurseries.

Civil Defence and N.F.S.: First-aid posts, sleeping, appliance houses.

Hospitals: Ward blocks, nurses' quarters, special treatment buildings, administration.

Housing: Agricultural workers' and miners' cottages.

Isolated cases have been built for a revolver range, a boat house, a sorting office and farm buildings.

The following Government Departments have taken the hut :—Admiralty, War Office, Air Ministry, Ministry of Aircraft Production, Ministry of Supply, Ministry of Home Security, Ministry of War Transport, Ministry of Agriculture, Ministry of Health. Ministry of Fuel and Power, Ministry of Labour, Board of Education, Petroleum Board, Ministry of Works.

Huts have also been supplied for the accommodation of United States and other Allied Forces in this country, and have been used by county and local authorities, railways and utility companies, for work sponsored by the appropriate Ministry.

Standard types of infilling are :—(a) Prefabricated wood-framed panels covered externally with hardboard, mineralised sidingboard or felted plasterboard; (b) Hollow clay blocks; (c) Seco units; (d) Wood cement units.

In addition, clay bricks, concrete bricks and concrete blocks have been used, and in some cases cavity walls have been formed with bricks and/or blocks. Roofs have been covered generally with corrugated asbestos cement sheeting. Felted plasterboard and wood wool have also been used.

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PLUMBING TRADES APPRENTICESHIP COUNCIL

At the meeting of the Plumbing Trades National Apprenticeship Council, held at the Institute of Plumbers, 61, Gower-street, W.C.1, on February 22 (Mr. D. N. Griffiths, BSc., in the chair), Mr. H. Blackman submitted for information a report upon proposals which were to be considered by a Committee of the National Joint Council for the Building Industry regarding the possibility of powers being taken to extend the control of that Council over apprenticeship matters not taken within its purview in the decisions of January, 1943, which brought apprenticeship wages and certain conditions within its scope. The Plumbing Employers' Federation had definitely stated to that Council that they would oppose any proposals which did not ensure that the National Apprenticeship Council for the Plumbing Trade continued to be responsible for, and recognised as the controlling body for conditions other than those accepted in January, 1943.

Considerable discussion followed in which Messrs. Harris, Thacker, Newman and Manson took part.

The Secretary reported he had received notification that an Area Council had been formed for Derbyshire and District, and he was instructed to send any information available to Mr. G. W. Smith, secretary.

Reports were presented from the following areas :—

Council.	No. indentured up to date.	No. completed training	No. still in training.
London	214	124	61
Birmingham	30	18	12
Manchester	52	4	46
North-East Lancs	235	154	78
Northumberland and Durham	664	414	208

FUTURE CONSTRUCTION

The Editor welcomes authentic information for this section from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych W.C.2, not later than Tuesday morning.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

APRIL 17.

Luton E.C.—Erection and completion of temporary school (M.O.W.P. hut No. 1 construction). B.E. Dep. £2 2s.

APRIL 18.

Leeds Health Committee.—Erection of additional buildings of prefabricated (B.C.F.) type, comprising Nurses' Hostel, Patients' Pavilions and connecting covered ways at Gateforth Sanatorium, Hambleton, nr. Selby. H. R. Hudson, A.I.A.S., M.R.San.I., Superintendent of Works and Buildings, Public Health Dept., Works and Building Section, 123, Beckett-st., Leeds, 9. Dep. £2.

APRIL 22.

Skipton U.D.C.—Erection of British Restaurant, Waller Hill. S.

PAINTING, ELECTRIC LIGHTING, HEATING, ETC.

APRIL 17.

West Ham C.B.—Cleaning, repainting, etc., of three-span steel bridge. B.S.

APRIL 19.

Conway B.C.—External painting of 376 houses. B.E.

APRIL 25.

Wandle Valley Joint Hospital Board.—Repair, painting and decoration at Isolation Hospital. E. W. Gunner, Clerk to the Board, Isolation Hospital, Beddington Corner, Mitcham Junction, Surrey.

APRIL 28.

Cheshire Joint Sanatorium Board.—For heating, hot and cold water supplies and steam services at ward block and nurses' hostel at

Sanatorium, Loggerheads, Market Drayton. Hoare, Lea & Partners, Consulting E., 158a, Edmund-st., Birmingham, 3. Dep. £2 2s.

ENGINEERING, IRON AND STEEL

APRIL 17.

Kingston-upon-Hull T.C.—Construction of reinforced concrete forebay in River Humber and 650 lin. yds. of 9 ft. 6 in. dia. brick and concrete outfall sewer. City E. Dep. £10 to City Treas.

ROAD, SEWERAGE AND WATER WORKS

APRIL 17.

Manchester T.C.—Surface dressing. City S. Dep. £1 1s.

APRIL 24.

Meden Valley Joint Waterworks Committee.—Insertion of steel tubes to existing borehole. A. H. Elliott, A.M.Inst.C.E., Dale Close, 100, Chesterfield-rd., South, Mansfield, Notts. Dep., £3 3s.

APRIL 25.

Malmesbury R.D.C.—Construction of 3 in., 2 in., and 1½ in. dia. asbestos cement water mains and incidental works at Cleverton. R. S. Pierce, 10, High-st., Malmesbury, Wilts. Dep., £2 2s.

MAY 5.

Ealing B.C.—Tar spraying roads. B.E. and S.

ROAD MATERIALS, ETC.

APRIL 17.

Manchester T.C.—Highways Dept.

MAY 1.

Northwich U.D.C.—S.

PUBLIC APPOINTMENTS

APRIL 26.

***Leeds T.C.**—Temporary Surveying Assistant. £240, plus bonus (£50 p.a.). Application forms from W. S. Cameron, M.Inst.C.E., City E.

Stoke-on-Trent T.C.—Reconstruction Officer. £1,000-£50-£1,250. E. B. Sharpley, T.C.

APRIL 29.

***Cornwall C.C.**—Assistant in Architectural Dept. Forms of application from County Architect, County Hall, Truro.

NO DATE.

***Canterbury E.C.**—Full-time Senior Assistant (should be A.R.I.B.A.). Applications to Principal, City of Canterbury Regional School of Art and Crafts, St. Peter's-st., Canterbury.

GENERAL BUILDING WORK

Bath.—T.C. to carry out repairs at South Twerton school, at £550 (subject to B.O.E. approval).

Birmingham.—Welsh Central Committee acquired premises for conversion into rest and recreation centre for Welsh girls.

Chesterfield.—Stones, Ltd., Cannon Brewery, Sheffield, propose structural alterations at "Half Moon" Inn, "Grouse" Inn and "New" Inn.

Criccieth.—U.D.C. approved conversion of premises into maisonette and two flats at 30, Marine-ter., for P. D. Horner; alterations to bakehouse. Egbert Griffiths (L.), architect, 1, Bank-pl., Portmadoc.

Isle of Ely.—E.C. propose alterations, etc., at Senior Boys' and Senior Girls' schools, Whittlesey.

Manchester.—T.C. approved provision of lavatory accommodation and timekeeper's office at tram terminus, for Transport Committee; erection of buildings at Wythenshawe estate; reinstatement of farm buildings at Chat Moss estate; reconditioning of College of Domestic Economy hostel, High-st., Chorlton-on-Medlock.

Mansfield.—T.C. propose adaptation of Car Bank House for offices for T.C. and B.S. Depts.

Middleton.—E.C. propose to acquire land at junction of Langley-la. and Heywood New-rd., for Grammar school.—T.C. propose erection of 'bus shelters on selected sites.

Murton (Co. Durham).—Miners' Welfare Committee proposes welfare hall.

Newcastle-on-Tyne.—City Council to provide additional lavatory accommodation for laundry staff at Elswick Grange, Westgate-rd. Plans by J. F. C. Solomon, City Estate and Property S.

Newcastle-under-Lyme.—T.C. approved: New hotel, junction of Keele-rd. and Thistleberry-av., Bents Brewery Co., Ltd., The Brewery, Stone; conversion of Moorland House, Porthill, into two houses, at £900. Plans by A. Cotton, B.S.

Northumberland.—C.C. to convert Mitford Hall, Mitford, into a youth hostel. Plans by County S., County Hall, Newcastle-on-Tyne.

Preston.—Local Branch of British Sailors' Society propose club premises.

Rochdale. — Housing Committee propose hostels for aged persons.

Rubery.—North Bromsgrove E.C. propose erection of prefabricated building as extensions to New-rd. Infants' school.

South Shields.—T.C. received sanction to adapt premises at Wellington-ter., for nursery, at £605. Plans by N. G. Richardson, B.E.—It is proposed to reinstate St. Gregory's R.C. school, at £320. Plans by J. H. Morton & Son, Fowler-st., South Shields.—H. Hill, Winchester-st., South Shields, is architect for erection of blacksmiths' shop.

Staffs.—E.C. propose residential centre at Barlaston Hall.

Sunderland.—W. & T. R. Milburn, 17, Fawcett-st., Sunderland, are architects for temporary hotel on site of Empress hotel.—T. A. Page, Son & Bradbury, King-st., South Shields, are architects for extensions to Grange Hotel, Ryhope-rd.—G. T. Brown & Son, Fawcett-st., Sunderland, prepared plans for warehouse for Jos. Wilson & Co., provision merchants, etc.

Wallsend.—Plans for alterations to premises, for T. B. Pearson & Sons, have been approved.

Walton (Derbyshire).—Parish Council proposes extensions at village hall.

Weaverham.—Parish Council propose public hall.

BRITISH RESTAURANTS AND CANTEENS

Aberdeen.—Plans to be prepared for school kitchen buildings, at £6,000, at Craigshaw, for which the architect is A. B. Gardner, 11, Bridge-st., Castlegate, Aberdeen.

Ayrshire.—C.C., from plans by own architects, to erect county kitchens for Mauchline, Catrine, and Auchinleck.

Huntingdonshire.—E.C. propose adaptation of buildings for dining-hall and kitchen at Fletton, at £1,990.

Lancaster.—E.C. acquired site in main-st., adjoining school, for erection of prefabricated building for school dining-room and kitchen.

Manchester.—T.C. received approval for central kitchens at Sharston, Wythenshawe; Hyde-rd., Gorton; and Green End, Burnage.

Montgomeryshire.—E.C. propose canteen kitchen at Penrhos and Belan C. of E. schools.

Newcastle.—E.C. to build meals centre at Ravenswood allotments. Plans by City E.C. Architect, Northumberland-rd., Newcastle-on-Tyne.

Stepps.—Plans prepared for extensions at Cardowan colliery canteen, the architect being James Taylor, 196, West Regent-st., Glasgow.

A.R.P. SCHEMES

PROVINCIAL.

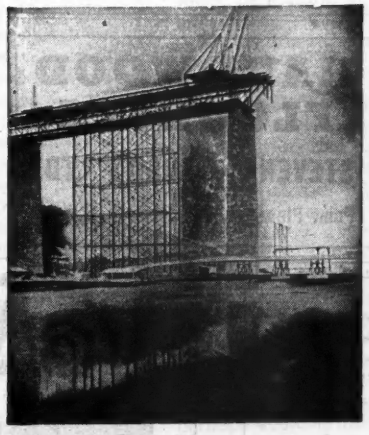
Ambleside.—U.D.C. propose erection of static water tank.

Clitheroe.—T.C. approved erection of garage for Rescue Party Service.

Newcastle - under - Lyme. — T.C. seeking approval for adaptation of Watlands Hall or Bradwell Lodge for Rescue and Ambulance personnel, etc.

Rotherham.—T.C. proposes to establish fire guard reserve centre.

Scalby.—U.D.C. to make application to M.H. for sanction to borrowing of £815 for alterations and additions at N.F.S. Fire Station, Newby.



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† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Chester.—Erection of prefabricated building for school dining-hall at Lache estate, for E.C. C. Greenwood, City S.: *John Perkins & Son, Ltd., White House, Whitby-rd., Ellesmere Port, Ches, £1,336.

Glasgow.—For new building for Walter G. MacAulay, Ltd., bakers, Greenock, Glasgow. Sir Alexander Gibb & Partners, Ltd., Queen Ann's-gate, Westminster, S.W.1: *Greys Ferro Concrete Co., Ltd., Contractors, Glasgow.

¶London (Air Ministry).—List of new contracts to value of £500 or over for week ended April 1:—

Agricultural work: Sofnol, Ltd., London, S.E.10.

Electrical work: East Anglian Electric Supply Co., Ltd., Stowmarket, Suffolk.

Installation work: Rigg and Remington, Ltd., London, N.W.7.

Civil engineering work: Sir Robert McAlpine & Sons, Ltd., London, W.1; Hadsphaltic Construction Co., Ltd., London, E.C.3; Trollope & Colls, Ltd., London, W.C.2.

Road surfacing work: Neuchatel Asphalt Co., Ltd., Staines, Middx; Anglo-American Asphalt Co., Ltd., Monkton Combe, nr. Bath.

Building work: Speirs, Ltd., Glasgow, C.2; A. N. Coles (Contractors), Ltd., Cardiff; Cowiesons, Ltd., Glasgow, N.

General maintenance work: Bosworth and Wakeford, Ltd., Daventry; Stone & Co. (Bristol), Ltd., Bristol 6; D. McEwing & Sons, Ltd., Greenock; G. G. Middleton & Sons, Ltd., Worksop.

¶London (Air Ministry).—List of new contracts to value of £500 or over for week ended April 8.

Drainage work: G. Briggs & Co. (Nottingham), Ltd., Nottingham.

Road surfacing work: Wm. Briggs & Son, Ltd., Dundee.

Civil engineering work: S. Cartledge & Son, Grimsby; J. Miller & Partners, Ltd., Edinburgh, 2; H. E. Pitt, Ltd., Sunderland; J. L. Kier & Co., Ltd., London, S.W.1.

Building work: Stone & Co. (Bristol), Ltd., Bristol, 6.

Painting work: A. Hector Grabham, Ltd., Sunderland.

Agricultural work: Maxwell M. Hart, Ltd., Glasgow, C.1; Sofnol, Ltd., London, S.E.10; J. W. Page, Ltd., Hampton Hill, Middx.

Installation work: Rigg & Remington, Ltd., London, N.W.7.

Structural steelwork: Redpath Brown & Co., Ltd., Glasgow.

¶London (Ministry of Works).—Contracts placed by M.O.W. during week ending April 6:—

Caernarvonshire: Building work, Ashworth Bros., Penrhyn-av., Rhos-on-Sea, Colwyn Bay.

Cambridge: Civil engineering, W. H. Gaze & Sons, Ltd., 23, High-st., Kingston.

Durham: Building work, G. W. Lazenby & Co., Ltd., Ferry Hill, Co. Durham.

Essex: Building work, T. J. Bailey & Son, 82, Victoria-rd., Chelmsford; A. C. Lawford, 16, Merilies-gdns., Westcliff-on-Sea.

Glamorgan: Building work, Gee, Walker & Slater, Ltd., Mount Earl, Bridgend.

Lincs: Building work, Adam Eastwood & Sons, Ltd., Burns-la., Warsop, Notts.

Middx: Building work, Trevor Construction Co., Ltd., Carlos-pl., W.1; Allen Fairhead & Sons, Ltd., Enfield, Middx; F. D. Hidden & Co., 103, Boston Manor-rd., Brentford; C. H. Coates, Davis-rd., Surbiton.

Wilts: Building work, E. W. Beard, Victoria-rd., Swindon, Wilts.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended April 1:—

Westmorland: Miscellaneous work, Nicholson & Wright, Ltd., Lancaster.

Yorks: Hutting (erection), Paul Rhodes, Ltd., Leeds 4.

Warwickshire: Hutting (erection), H. Dare & Son, Ltd., Birmingham 8.

Oxfordshire: Miscellaneous work, Walker (Tooting), Ltd., Croydon.

London: Miscellaneous work, A. J. Styles, Ltd., London, S.W.19.

Glamorgan: Miscellaneous work, Davies & Davies, Cardiff.

Wilts: Hutting (erection), Stone & Co. (Bristol), Ltd., Bristol.

Manchester.—Additions to works. B. Waterhouse (F.), architect, 134, Deansgate: *Robert Carlyle & Co., Ltd., Elsinore-rd., Old Trafford, Manchester 16.

Montgomeryshire.—Construction of canteen kitchen and dining-room at Llandysilio, for E.C. H. Carr, F.R.I.B.A., architect: *Jones & Leach, Ltd., Newtown, £685.

Shildon.—Painting houses, for U.D.C.: *Stabler & Dawes, Shildon, £560.

South Shields.—Erection of temporary workshop and office. H. Hill, Winchester-st., South Shields, architect: *J. W. Ridley, St. Mary's-av., South Shields.

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DIBLEYS, LTD. (384308). Regd. Dec. 10. Mill-rd., Winchelsea, Sussex. Bldrs., etc. Nom. cap.: £2,000. Dirs.: W. A. Dibley and Mrs. C. J. Dibley.

BRIDGEWOOD AND CO. (LTD.) (384305). Regd. Dec. 10. 62, Walpole-rd., Bromley, Kent. Bldrs., contractors, etc. Nom. cap.: £500. Dirs.: Mary Rumph. and A. Greenwood.

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FIREPLACES OF DISTINCTION, LTD. (384326). Regd. Dec. 11. Crown Works, Pallion, Sunderland. Nom. cap.: £100. Dirs.: J. Steel and others.

W. SALTHOUSE (BLACKPOOL), LTD. (384086). Regd. Nov. 25. 204, Waterloo-rd., Blackpool. Bldrs' mchts., etc. Nom. cap.: £1,000. Dirs.: W. C. Salthouse and others.

THELSTO, LTD. (384273). Regd. Dec. 8. 69, Mt. Pleasant-rd., N.W.10. Bldrs., decorators, etc. Nom cap.: £1,000. Dirs.: S. Collins and L. Creggy.

HERBERT GOODING, LTD. (384348). Regd. Dec. 13. 61, Cheapside, E.C.2. Bldrs., bldrs.' mchts., etc. Nom. cap.: £1,000. Dirs.: H. Gooding and Gladys E. E. Gooding.

G. A. CLAPHAM AND SON, LTD. (384402). Regd. Dec. 16. Albion-rd., New Mills, Derby. Bldrs., joiners, etc. Nom. cap.: £2,000. Dirs.: G. A. Clapham and W. Clapham.

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J. PREEN AND CO. (BUILDERS), LTD. (384483). Regd. Dec. 21. 59, Elgin-ave., W.9. Nom. cap.: £1,000. Dirs.: J. C. Preen and C. E. French.

KEY (CONSTRUCTIONS), LTD. (384484). Regd. Dec. 21. 178, Horn-la., Acton, W.3. Bldrs., etc. Nom. cap.: £500. Dirs.: A. E. Key and Ethel Key

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North-Eastern Housing Association.

Mr. Henry Willink, Minister of Health, has received a deputation from the northern group of Members of Parliament, consisting of Mr. W. Whiteley, M.P., Colonel Greenwell, M.P., Mr. J. J. Lawson, M.P., Mr. Donald Scott, M.P., and Mr. R. J. Taylor, M.P., on the future of the North-Eastern Housing Association. The deputation made a full statement of their views on this subject, and Mr. Willink undertook that these would be borne in mind and would have close consideration when the time came for a decision to be taken as to the Association's future.

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